

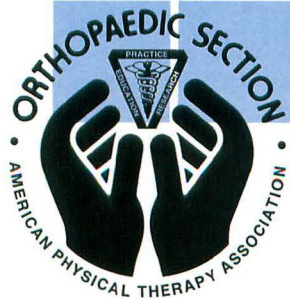
ORTHOPAEDIC


PHYSICAL THERAPY PRACTICE

THE MAGAZINE OF
THE ORTHOPAEDIC SECTION, APTA

VOL. 17, NO. 1

2005



 **APTA**
American Physical Therapy Association
The Science of Healing. The Art of Caring.

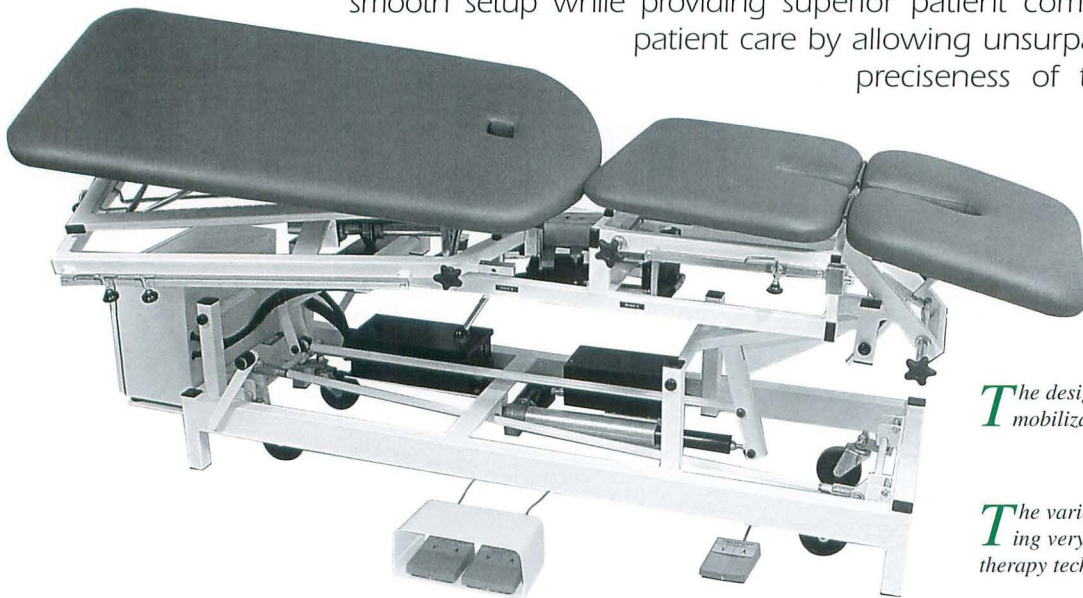
Rehab[®]**CARDON REHABILITATION PRODUCTS, INC.™**Wurlitzer Industrial Park, 908 Niagara Falls Blvd.
North Tonawanda, NY 14120

Telephone: 1-800-944-7868 • Fax: 716-297-0411

E-mail: sales@cardonrehab.com

**THE ACCEPTED
STANDARD OF
PERFORMANCE****The Cardon Mobilization Table...**
Going beyond the third dimension...

Now available with the patented option which eliminates the use of flexion and rotation levers. This allows the therapist to perform advanced manual therapy techniques with complete confidence and comfort with an ergonomically friendly design. The unique design provides more efficient and smooth setup while providing superior patient comfort. The option enhances patient care by allowing unsurpassed opportunity for more preciseness of treatment and monitoring of segments and joints.



The design and concepts make this the best mobilization table manufactured today"

Professor Freddy Kaltenborn
Author, Int'l Lecturer in Manual Therapy

The various sections have minimum flex allowing very accurate application of specific manual therapy techniques"

Olaf Evjenth
Author, Int'l Lecturer in Manual Therapy

**YES! I would like to preview the
Cardon Mobilization Table.**

Please rush your 15 minute VHS video (for standard model):

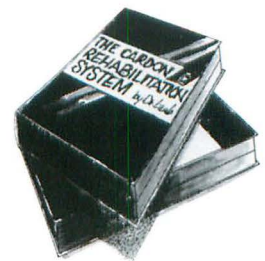
Name: _____ Title: _____

Clinic/Institution: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: _____ Signature: _____

Rehab**CARDON REHABILITATION PRODUCTS, INC.™**Wurlitzer Industrial Park, 908 Niagara Falls Blvd.
North Tonawanda, NY 14120Telephone: 1-800-944-7868 • Fax: 716-297-0411
E-mail: sales@cardonrehab.com**SEE FOR
YOURSELF
THESE
OUTSTANDING
FEATURES:**

- Accurate localization of the vertebral segment
 - Precision and versatility of technique
- Absolute control of the mobilization forces
 - Excellent stability for manipulation.

Joint Jackets

made by Solaris^{INC}

**The Swelling Solution for...
Orthopedics**

*Engineered to be therapeutic
even while sleeping*

*Protects and supports
soft tissue*

*Joint Jackets™ comfort
increases patient compliance*

*Passive swelling reduction
through pressure differentials*

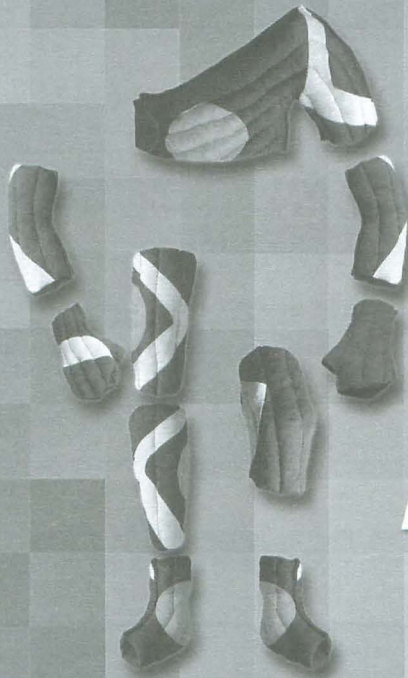


*Moisture management
promotes skin integrity*

*Gradient compression
stimulates fluid movement*

*Pro line allows adjustable
sizing and compression*

Joint Jackets™



Joint Jackets Pro™



**Developed for
Professional Football
Teams**

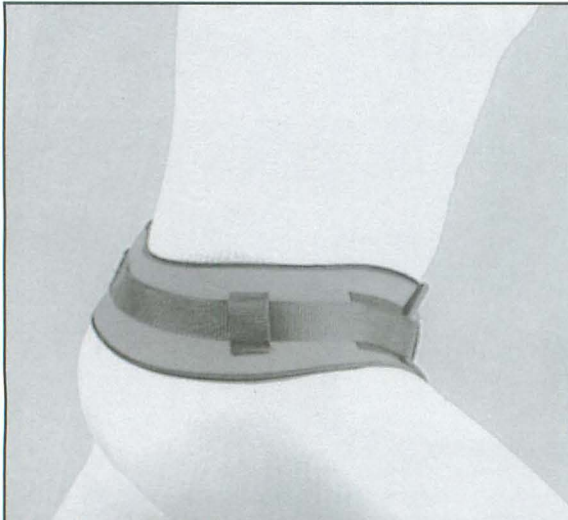
Tel: (262) 821-6113
Fax: (262) 821-6263

information@swellingsolutions.com

Solaris^{INC}
Brookfield, WI

This S-I BELT stays in place while Sitting, Driving, Squatting & Playing Sports!!

The Active S-I Belt™



"The Active S-I Belt does work...it stabilizes the pelvic girdle very effectively."— David Milkos, DC,PT
Chiropractor, Physical Therapist & Multifan Concept Instructor

Call us for information
Toll Free: 877-477-3248

- **Pelvic Girdle structures are LOCKED in place by a STURDY Nylon belt and a Flexible, NON-SLIP Neoprene belt.**
- **This REVOLUTIONARY "DOUBLE-BELT" is the most SECURE and COMFORTABLE sacroiliac support available!!!**
- **FULLY ADJUSTABLE for all patients, including the most acute or unstable and those returning to work or sports!!!**

Available through these distributors!
GNR Health Systems: 800-523-0912
Sammons-Preston: 800-323-5547

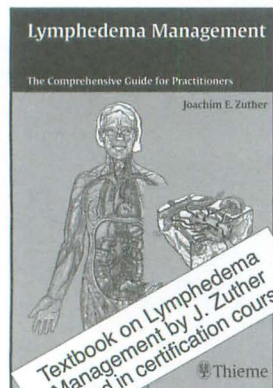
SPECHT ORTHOPEDIC, INC.

P.O. Box 23 - Swansea, MA 02777

COMPREHENSIVE LYMPHEDEMA MANAGEMENT

Courses offered throughout the US

Ft. Lauderdale, Baltimore, New York, San Francisco, Oklahoma City, El Paso, Raleigh, and others



Complete Decongestive Therapy (CDT)

Manual Lymph Drainage (Vodder) - Compression Therapy - Exercises - Skin & Wound Care

Certification Classes (135 hours / 14 days)

Meets LANA requirements. Patient contact.
Included in tuition:

- course workbook
- textbook on Lymphedema Management
- complete set of bandages
- fitter certification
- special workshops (billing, coding, genital & pediatric lymphedema, wound care, and more)

Lymphedema Management Seminars (31 hours / 4 days)

Faculty:

Joachim E. Zuther, CI, Director • Kim Leaird, PT
Michael King, M.D. • Trudy Ferguson-Pitters, PT

CEU's

Courses are approved for CEU's by the FPTA, Board of Occupational Therapy, Texas Physical Therapy Association and the NCBTMB (Cat. A)

Textbook available on www.acols.com

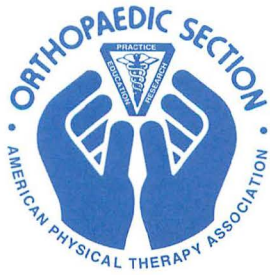
We provide ongoing support for our graduates: free online therapist listing and patient referral, free assistance with patient problems, regular mailings with updates on billing issues, etc., biennial refresher conferences, supply with all the necessary bandaging and lymphedema management materials.

SINCE 1985 IN EUROPE **ACADEMY OF LYMPHATIC STUDIES** SINCE 1994 IN U.S.

Website:
www.acols.com

Call 800-863-5935
for a free brochure with dates/locations

E-mail:
academy@acols.com



ORTHOPAEDIC PHYSICAL THERAPY PRACTICE

TABLE OF CONTENTS

IN THIS ISSUE

- 8 CSM 2005 Paris Award Lecture: Moving in the Right Direction
Lola Sicard Rosenbaum
- 12 The Practical Use of Evidence-based Practice in Determining the Best Treatment for a Patient with Recurrent Achilles Tendonitis
Edward A. Goodnite
- 16 Acetabular Labrum Tears: A Late Complication of Legg-Calve-Perthes Disease
Mark D. Beissel
- 22 Validity of the Duffy-Rath Questionnaire
Jeffrey Ventre, Ronald J. Schenk
- 32 2005 CSM Award Winners

REGULAR FEATURES

- 5 Editor's Corner
- 6 President's Message
- 29 Book Reviews
- 35 CSM 2005 Board of Directors Meeting Minutes
- 36 CSM 2005 Annual Business Meeting Minutes
- 37 Webwatch
- 39 Occupational Health SIG Newsletter
- 43 Foot and Ankle SIG Newsletter
- 45 Performing Arts SIG Newsletter
- 48 Pain Management SIG Newsletter
- 52 Animal Physical Therapist SIG Newsletter
- 60 Index to Advertisers

MISSION

The mission of the Orthopaedic Section of the American Physical Therapy Association is to be the leading advocate and resource for the practice of Orthopaedic Physical Therapy. The Section will serve its members by fostering quality patient/client care and promoting professional growth through:

- enhancement of clinical practice,
- advancement of education, and
- facilitation of quality research.

PUBLICATION STAFF

EDITOR

Christopher Hughes, PT, PhD, OCS

ADVISORY COUNCIL

G. Kelley Fitzgerald, PT, PhD, OCS

Joe Kleinkort, PT, MA, PhD, CIE

Becky Newton, MSPT

Stephen Paulseth, PT, MS

Robert Rowe, PT, DMT, MHS, FAAOMPT

Gary Smith, PT, PhD

Michael Wooden, PT, MS, OCS

MANAGING EDITOR & ADVERTISING

Sharon L. Klinski

Orthopaedic Section, APTA

2920 East Ave So, Suite 200

La Crosse, Wisconsin 54601

800-444-3982 x 202

608-788-3965 FAX

Email: sklinski@orthopt.org

Orthopaedic Physical Therapy Practice (ISSN 1532-0871) is the official magazine of the Orthopaedic Section, APTA, Inc. Copyright 2005 by the Orthopaedic Section/APTA. Nonmember subscriptions are available for \$30 per year (4 issues). Opinions expressed by the authors are their own and do not necessarily reflect the views of the Orthopaedic Section. The editor reserves the right to edit manuscripts as necessary for publication. All requests for change of address should be directed to the La Crosse Office.

All advertisements which appear in or accompany *Orthopaedic Physical Therapy Practice* are accepted on the basis of conformation to ethical physical therapy standards, but acceptance does not imply endorsement by the Orthopaedic Section.

Orthopaedic Practice is indexed by Cumulative Index to Nursing & Allied Health Literature (CINAHL).

Publication Title: *Orthopaedic Physical Therapy Practice*

Statement of Frequency: Quarterly; April, June, August, and December

Authorized Organization's Name and Address: Orthopaedic Section, APTA, Inc., 2920 East Avenue South, Suite 200, La Crosse, WI 54601-7202

Orthopaedic Section Directory

OFFICERS

President: Michael T. Cibulka, PT, MHS, OCS Jefferson County Rehab & Sports Clinic 1330 YMCA Drive, Suite 1200 Festus, MO 63028 (636) 937-7677 (Office) (636) 931-8808 (FAX) mcibulka@earthlink.net Term: 2004 - 2007	Vice President: Thomas G. McPoil, Jr, PT, PhD, ATC 1630 W University Heights Drive South Flagstaff, AZ 86001 (928) 523-1499 (928) 523-9289 (FAX) tom.mcpoil@nau.edu Term 2004 - 2007	Treasurer: Joe Godges, DPT, MA, OCS Kaiser PT Residency & Fellowships 6107 West 75th Place Los Angeles, CA 90045-1633 (310) 215-3664 (Office) (310) 215-0780 (FAX) godges@msn.com Term: 2005-2008	Director: James Irrgang, PT, PhD, ATC University of Pittsburgh Department of Physical Therapy Sennett at Atwood Streets Pittsburgh, PA 15260 (412) 432-1237 (Office) (412) 647-1454 (FAX) irrangjj@msx.upmc.edu Term: 2003-2006	Director: William H. O'Grady, PT, DPT, OCS, FAAOMPT, AAPM 1214 Starling St Steilacoom, WA 98388-2040 (253) 588-5662 (Office) w.ogrady@comcast.net Term: 2005-2008
--	--	--	---	--

CHAIRS

MEMBERSHIP Chair: Scott Adam Smith, MPT 29 Lawrence Street Hicksville, NY 11801 (516) 681-5647 (Office) smittyp14@aol.com <i>Members: Hunter Bowie, Julia Cbevan, John Childs, Melissa Corriveau, Byron Russell, Terry Trundle</i>	EDUCATION PROGRAM Chair: Ellen Hamilton, PT, OCS 724 Montclair Road, Ste 100 Birmingham, AL 35213 (205) 599-4500 (205) 599-4535 (FAX) ellen.hamiltonpt@charter.net Vice Chair: Beth Jones, PT, DPT, MS, OCS <i>Members: Dee Daley, Bob Duvall, Deborah Gross-Saunders, Kristinn Heindrichs, Joe Kleinkort, Deborah Lechner, David McCune, Tara Manal, Cheryl Mauer, Stephen Paulseth, Chris Powers, Christopher Scott, Jeff Stenbach</i>	INDEPENDENT STUDY COURSE Editor: Mary Ann Wilmarth, DPT, MS, OCS, MTC, CertMDT 10 Nollet Dr Andover, MA 01810-6312 (978) 682-8802 mwilmarth@comcast.net Managing Editor: Kathy Olson kmolson@orthopt.org (See Office Personnel)	ORTHOPAEDIC PRACTICE Editor: Christopher Hughes, PT, PhD, OCS School of Physical Therapy Slippery Rock University Slippery Rock, PA 16057 (724) 738-2757 cjh@nauticom.net Managing Editor: Sharon Klinski sklinski@orthopt.org (See Office Personnel)
RESEARCH Chair: G. Kelley Fitzgerald, PT, PhD, OCS University of Pittsburgh Department of Physical Therapy 6035 Forbes Tower Pittsburgh, PA 16260 (412) 383-6643 (Office) (412) 383-6629 (FAX) kfitzger@pitt.edu <i>Members: Paul Beattie, Gregory Hicks, Lori Michen, Sheri Silfies</i>	ORTHOPAEDIC SPECIALTY COUNCIL Chair: Robert Johnson, PT, MS, OCS 406 N Brainerd LaGrange, IL 60526 (708) 579-0423 robertjohnson406@sbcglobal.net <i>Members: Col. Nancy Henderson, Rob Landel</i>	PRACTICE Chair: Robert (Bob) H Rowe, PT, DMT, MHS, FAAOMPT 126 Oak Leaf Drive Slidell, LA 70461-5006 (504) 568-4285 (504) 568-6552 (FAX) rrowe@lsuhsc.edu <i>Members: Bill Boissonnault, Joe Farrell, Helene Fearon, Jay Irrgang, Aimee Klein, Stephen McDavitt, Ken Olson, Richard Smith, Debbie Todd</i>	PUBLIC RELATIONS/MARKETING Chair: Richard Watson, PT 1266 Berkshire Lane Barrington, IL 60010-6508 (847) 726-9181 (703) 935-4754 (FAX) rick@mrpt.com <i>Members: Amanda Adams, Cheryl Dimapasoc, Michelle Spicka, Michael Tollan</i>
FINANCE Chair: Joe Godges, DPT, MA, OCS (See Treasurer) <i>Members: John Childs, Steve Clark, Pam White</i>	AWARDS Chair: Thomas G. McPoil, Jr, PT, PhD, ATC (See Vice President) <i>Members: Gary Hunt, Susan Appling, Carl DeRosa, Dale Schuit</i>	JOSPT Editor-in-Chief: Guy Simoneau, PT, PhD, ATC Marquette University P.O. Box 1881 Milwaukee, WI 53201-1881 (414) 288-3380 (Office) (414) 288-5987 (FAX) guy.simoneau@marquette.edu Executive Director/Publisher: Edith Holmes editbholmes@jospt.org	NOMINATIONS Chair: Leza Hatch, PT, MSPT, MA, OCS 930 Olive Dr, Unit 59 Bakersfield, CA 93308-4182 leza_h_pt@yahoo.com <i>Members: Pamela Duffy, Kyndall Boyle</i>
SPECIAL INTEREST GROUPS OCCUPATIONAL HEALTH SIG Deborah Lechner, PT, MS - President FOOT AND ANKLE SIG Stephen G. Paulseth, PT, MS, SCS - President PERFORMING ARTS SIG Susan Clibnton, PT, MHS - President	PAIN MANAGEMENT SIG Joe Kleinkort, PT, MA, PhD, CIE - President ANIMAL PT SIG Deborah Gross-Saunders, PT - President	APTA BOARD LIAISON Stephen Levine, PT, DPT, MSHA stevelevine@apta.org 2005 HOUSE OF DELEGATES REPRESENTATIVE Bob Rowe, PT, DMT, MHS, FAAOMPT	Orthopaedic Section Website: www.orthopt.org Bulletin Board feature also included. Check it out soon!

OFFICE PERSONNEL

Orthopaedic Section, APTA, Inc., 2920 East Avenue South, Ste 200, La Crosse, WI 54601-7202, (800) 444-3982 (Office), (608) 788-3965 (FAX)					
Terri DeFlorian, Executive Director	x 204	tdeflorian@orthopt.org	Kathy Olson, Managing Editor ISC	x 213	kmolson@orthopt.org
Tara Fredrickson, Executive Associate	x 203	tfred@orthopt.org	Carol Denison, ISC Processor/Receptionist	x 215	cdenison@orthopt.org
Sharon Klinski, Managing Editor J/N	x 202	sklinski@orthopt.org			

Editor's Corner: The Peer Review Process

I was recently asked at the last Combined Sections Meeting in New Orleans whether *Orthopaedic Physical Therapy Practice (OP)* is a peer reviewed publication. The answer is no. *OP* is not governed by a formal and blinded peer review process when articles are submitted for publication. *OP* is a magazine. By definition, a magazine is "a periodical that publishes articles written for a general audience." Articles in magazines may or may not include bibliographies. *OP* is an expanded newsletter containing nonresearch design articles of clinical interest, abstracts of scientific literature, and book reviews. Recognized special interest groups—Occupational Health, Foot & Ankle, Performing Arts, Pain Management, and Animal Physical Therapists—also publish their newsletters within *OP*. This focus is significantly different from some of the peer reviewed journals in physical therapy such as the *Journal of Orthopaedic and Sports Physical Therapy* or *Physical Therapy Journal*. A formal peer review process whereby editors and associate editors oversee blinded reviews performed by approved reviewers represents the general process.

The goal of peer review is to publish scholarly articles of high quality and credibility that meet the requirements of the scientific process. *OP* publications do not adhere to the strict requirements of the traditional peer review process but we do have standards related to the presentation of information that will enhance clinical practice, advance education, and also facilitate research. As Editor of *OP*, I serve as the primary decision-maker as to whether an article will appear in *OP*; but I also have a panel of advisory board members that I can rely on to review areas outside of my expertise.

The question then becomes what articles are a good fit for *OP*? First and foremost the article has to be of interest to clinicians and relevant to clinical practice. Such articles may not

always fall under the category of science but may discuss a new method of treatment, administration or new methods in care, case reports on a unique patient pathology, or a literature review of a pathology or discussion of a topic not previously covered. In other words, the articles are 'interest' reviewed. My responsibility lies in determining if the audience can benefit from the content of the article and to what extent the information is deemed credible. Even with this 'softer' review process, I believe *OP* serves a unique role in informing the clinician and improving practice. A good example is the article by Goodnite and Fitzgerald. The authors discuss the process of how to conduct an evidence-based investigation for a patient with recalcitrant Achilles tendonitis. They share their method of inquiry and how their findings enabled development of a successful treatment program. This instructional approach was a good fit in accordance to the mission of *OP* and may not have found its way into a peer reviewed publication since the basis of the article was more of a 'how-to' article. As Editor, I saw immediate application for publishing this type of article and felt it was a prime example of a topic that needs to be included in *OP*.

Neither peer-reviewed publications nor publications like *OP* are immune from criticism for what eventually appears in final publication. Many see publication in *OP* as not worthy of meeting strict standards of peer reviewed scholarship in order to count toward the rigors of tenure and promotion. In contrast some critics cite the peer review process as a flawed activity that can still lead to publication biased information and erroneous conclusions.¹

The influence of technology will continue to shape publication. There continues to be a push by many in the scientific community to move to an open access publication using the internet. This would require greater emphasis on the reader to decipher

credibility and worthiness. Many journals now offer archive and retrieval of articles in digital format. This transition to the electronic medium has not only impacted publication but also has expedited the peer review process by allowing online reviews and quicker communication among reviewers. In any case, the process of peer review still represents the best we have available to establish some brand of scholarship quality for the readership.

In summary, the point of this brief editorial is not to make judgment on which publication format (peer reviewed vs magazine) is superior but to highlight the fact that both formats have utility. In the end it is the audience to whom the publication is directed that will ultimately set the standards of quality based on their subscription and participation in the publication process as well as their ability to properly interpret the material. I compare the activity of critical reading to seeing the UL mark (Underwriters Laboratories) regarding product and safety compliance on an extension cord. Even though the product has been tested for safety, you still have to be smart enough to not plug the cord into an outlet while standing in a puddle of water!

To this end I continue to encourage, you the reader, to share your clinical experiences in *OP* or continue to be a critical consumer of the literature to enhance your practice and ultimately benefit the patients you serve.

REFERENCE

1. Godlee F, Jefferson T, ed. *Peer Review in the Health Sciences*. 2nd ed. BMJ Publishing Group; 2003.



Christopher Hughes,
PT, PhD, OCS
Editor, *OP*

President's Message

Michael T. Cibulka, PT, MHS, OCS
President, Orthopaedic Section, APTA, Inc.



I just got back from New Orleans. One thing you can always count on is at least a 5 to 10 pound weight gain, little sleep, some gastritis (but the food sure is good), and many blisters from walking back and forth from the convention center. The Combined Sections Meeting was a great success with over 5800 attendees. Overflowing meeting rooms was the rule for Orthopaedic Section programming that included clinical courses on the performing artists shoulder, the hip, and the thoracic cage. A huge thank you to Ellen Hamilton and her committee for the excellent CSM programming! David Greathouse, the newly appointed President of *JOSPT*, gave the Opening Ceremonies keynote address. David explored the past, present, and future of specialization, on this 20th anniversary of clinical specialization. The Orthopaedic Section Board of Directors met on Thursday night with Committee Chairs and SIG Presidents and then again on Friday morning. Saturday night was the Section's Award Ceremony and Black Tie and Roses Reception. The Orthopaedic Section's Vice President, Tom McPoil, PT, PhD, who also serves as Awards Chair, deserves a special thank you along with his committee for all of their hard work. Please see page 32 for a list of this year's award winners. Recognition of outgoing officers included 2-term Director, Gary Smith; Nominating Committee Chair, Susan Michlovitz; and Performing Arts SIG Chair, Jeff Stenback. Sunday the Orthopaedic Section Board of Directors were back at it again for an all day session to review the Section's Policies. This proved to be a very productive day. A special thanks to APTA Speaker Steve Levine (also the Section's APTA Liaison) for his help. One interesting discussion the Board had while pondering the structure of the SIGs focused on future growth and specialization. Currently most SIGs are related to a specific area of physical therapy practice; however, we

also know that some therapists are interested in specific anatomy. This led us to wonder if someone would want to develop a hallux metatarsophalangeal joint SIG (aka the big toe SIG)? Funny, yes but this does beckon the question of how far do we want to split up the body? This led to our next discussion and the possibility of developing just 3 major anatomical SIGs—the Spine, Upper Extremity, and Lower Extremity. The growth of the Certified Hand Therapist (CHT) is an example of this proliferation and fragmentation. Moreover, current practice has shown that Orthopaedic Surgeons are becoming increasingly specialized anatomically. Everyone agreed that this is an issue that must be looked at more closely in the future. We will discuss this further at the Section's Fall BOD Meeting.

In this President's Message, I will give a brief update on some of the Orthopaedic Section's activities. As President my job is to make sure everything runs smoothly and all Committees and SIGs have what they need to move us forward towards our mission and vision, preside at all BOD and membership meetings, and ensure that our strategic plan is accomplished. Therefore I have been busy with all facets of the Section, from working on a new strategic planning reporting system, to looking at the new web site, new meeting formats, updating policy and procedures, restructuring committees, working as ex-officio with our committees as well as working with the SIGs, and much more. Every Tuesday I call the Orthopaedic Section's Executive Director, Terri DeFlorian, and get updated on items that need to be further discussed by the BOD, as well as other Section and office activities.

Well what is new? Many things. We are working on restructuring the Section's website to include a consumer and PT portal. This will allow the Orthopaedic Section to be an educator to both physical therapists and nonphysical therapists. Managing money, as we all know, is an ephemeral thing. Right now,

as long as Independent Study Courses (ISC) do well, the Section seems to do well. However, the Board would like not to have to rely on just one main source of income. We are working on that. The ISC registrations are up 14% comparing final 2004 figures to 2003. We have some nice ISC topics coming up including Post-operative Management of Orthopaedic Surgeries, Strength & Conditioning, Pharmacology, and Current Concepts in Orthopaedic Physical Therapy. We also plan to have an Orthopaedic Section member volunteer 'pool' where anyone interested in being involved in the Orthopaedic Section can submit his/her name. The Orthopaedic Section BOD will use this pool to fill vacancies on our Standing Committees. Using a pool system, modeled after APTA, will help us fill committees with qualified and willing members quickly and fairly. This 'pool' system will be added to the Section's website soon.

Finances are again solid, thanks to the effort of Joe Godges, our Treasurer, and the Finance Committee consisting of Pam White, Steve Clark, and John Childs. Right now we are on budget and our savings as well as net assets are looking very good. However, we realize the difficulties of the stock market and continue to carefully watch our assets. We continue to donate \$18,750 to the Foundation for Physical Therapy's Clinical Research Network twice each year. For more information, check out the Treasurer's comments on the website.

Directors Jay Irrgang and Gary Smith also serve as *JOSPT* Board members as well as liaisons to most of the Committees, SIGs, and Education Groups and therefore are a vital communication link. Our SIGs and Education Groups are very important to CSM programming as well as in improving niche practice areas in orthopaedic physical therapy. Jay has been solid, dependable, and perspicacious in his role as Director, a born worker bee. Gary Smith, as mentioned previously is leaving the Orthopaedic Sections BOD after 6 years of service. We will sure-

ly miss his 'Garyisms' and the Smith style for which he became uniquely known. Gary knew how to bring a laugh or a smile to every Board meeting. Gary's leadership style has a perfect mix of green, orange, gold, and yes blue. These were great attributes to have as a Board. We welcome Bill O'Grady as our new Director to the Orthopaedic Section BOD. Bill, a fellow Washingtonian, will take up where Gary left off, a hard worker who does not take himself or life too seriously. I have previously worked with Bill on the Orthopaedic Specialty Council a few years back. I can vouch for his work ethic and commitment to our profession. We look forward to working with you, Bill.

This year's CSM really showed the strength and ability of our Research Committee. Kelly Fitzgerald, PT, PhD, and his committee consisting of Paul Beattie, Lori Michen, and Sheri Stilfies continues to do a marvelous job. Reading the abstracts in the January *JOSPT* surely piqued my clinical interest. The quality of the abstracts presented was just outstanding and shows just how far our profession has progressed in its research. Ten years ago, most of the studies were non-clinical and many without 'real' patients, and if they did have patients they were usually simple reliability studies. At CSM this year, the presentations were complex, cogent, and clinically applicable. I hope we will see many of these platforms or posters published soon in *JOSPT* or *Physical Therapy*. Here are just a few of the many titles that I found interesting: The Hip Abduction Moment and Progression of Knee Osteoarthritis, Frontal and Transverse Plane Hip Moments during Gait in Females With and Without Patellofemoral Pain, and Responsiveness of the Neck Disability Index in Patients with Mechanical Neck Disability. Every one of these titles I can relate to my clinical practice. Now that is clinical research!

Membership is up, the numbers are currently: 13,537 PTs, 556 PTAs, and 772 students for a total membership of 14,865. Adam Smith, our Membership Chair, attended the Student Conclave held in Charlotte, SC last year as well as this year's CSM. Adam is always working on improving Section membership.

Bob Rowe our Practice Committee Chair and Delegate to the APTA HOD has

“
I continue to watch
in amazement how *OP*
continues to evolve and improve
... clinical articles keep getting
better while the revenue
keeps increasing.”

kept the Orthopaedic Section up on a host of hot issues including Medicare Direct Access, POPTS (including the South Carolina case), reimbursement issues, governmental affairs, and many, many more. Bob also serves as the Section's Delegate to the House of Delegates. Bob brings a plethora of member-driven ideas to our meetings.

Mary Ann Wilmarth continues her hard work as Independent Study Course Editor. Kathy Olson, from the Section office, assists Mary Ann in this most important job. The Orthopaedic Section published 3 ISC this year. Last year, registrations totalled 1775, an increase over 2003. Mary Ann continues to find new ways to increase enrollment, as well as improve the quality of our courses. Also assisting Mary Ann is the ISC Advisory Panel consisting of Tom McPoil, Ellen Hamilton, John Childs, Leza Hatch, and Katherine Lyons.

Chris Hughes as *OP* Editor continues to put out an ever-improving publication. He is aided by the very capable and talented Sharon Klinski. The clinical articles keep getting better while the revenue keeps increasing. What else can I ask for? Last year we had a record \$41,160 in *OP* advertising revenue. The total number of articles received in the last year is 14 with average turnaround time of 3.5 months. I continue to watch in amazement how *OP* continues to evolve and improve.

Last but not least I must thank our Section staff, Terri DeFlorain, Tara Fredrickson, Sharon Klinski, Kathy Olson, and Jessica Hemenway. They are just super. I am sorry to say the Jessica will be leaving us; we wish you happiness and success Jessica. We welcome Carol Denison to the Orthopaedic Section. Just a few years ago we had a staff twice

as big as we do now, the Finance Committee offered suggestions for reworking jobs and multitasking all Section office staff. Terri and her staff had to learn not only how to work harder but smarter, this saved the Section a lot of money. As President, I am indebted to them for taking on these many new tasks and doing such a great job. Without all of the hard working people (members and staff), there would be no Orthopaedic Section. Thank you again to all of you for your contribution. Please if you are involved, stay involved; and if not, get involved.

CSM 2005 Paris Award Lecture: Moving in the Right Direction

Lola Sicard Rosenbaum, PT, MHS, OCS

The Paris Distinguished Service Award lecture was presented the Combined Sections Meeting in New Orleans, LA on February 26, 2005.

It is an honor to be here tonight and fitting to receive this award during the year when the Combined Sections Meeting is being held in the city of my birth. Had it been any other location my mother would not be able to be here. It is meaningful to be able to share this honor with my family. Many of you know my husband, Don, my children, Christy and Nadia, my mother, Charlotte, and my aunt, Edith Peyton, from their attendance at many Orthopaedic Section meetings. Also in attendance tonight is my godmother, Miriam Kahl, my sister, Charlotte Sicard, and a special family friend, Scout McEnroe.

Approximately 13 years ago, I received a phone call from Annette Iglarsh asking if I would be interested in the position of Vice Chair for the Education Program Committee for the Orthopaedic Section. Annette had met me at a course a few months before and invited my participation even though I hadn't expressed an interest in becoming active in the Section. Annette explained that I would be assisting Nancy White, the Chair of the committee, so it would not require a lot of my time. Her invitation started me on the path to this award. Following in Annette's footsteps, I asked almost anyone and everyone who sat next to me over the years to get involved in the Orthopaedic Section in some way. A few of those are Paul Howard, Ellen Hamilton, Chris Powers, Adam Smith, Beth Jones, Kim Schoensee, Mark Bishop, Mark Trimble, Nicholas Quarrier, Gary Shankman, and Susan Appling. In turn Chris Powers invited Kornelia Kulig, John Yack, and David Tiberio to contribute and Adam Smith invited Hunter Bowie and David Morissette to become more involved in the Section. In this manner the Section continues to thrive. If you are here tonight, you are probably more active than most Orthopaedic Section members. I encourage you to help con-

tinue the legacy of asking people to do something for the Section. Use my and Annette's winning strategy of starting with something small to get that first 'yes' then keep asking.

You never know what can happen when you get involved. Many years ago when attending my first CSM, I was wandering around San Antonio looking for the entrance to the convention center. There were 2 gentlemen in front of me who looked like physical therapists so I tapped one on the shoulder to ask directions. Those 2 gentlemen turned out to be Joe Farrell and Stanley Paris. At the time I was awe struck and thought, "Oh, just wait until I tell everyone at work that I met Joe Farrell and Stanley Paris." As it turned out, we were all headed for the same Section Board Meeting; and over the years, I have developed a continuing and supportive friendship with Joe and Stanley.

I am still awe struck sometimes by Stanley Paris and am incredibly proud to receive this award which is named in honor of his service to the Section. While everyone has their Stanley story, mine is about someone close to Stanley who has also served the Orthopaedic Section over the years and at times has gone beyond the call of duty. One of our past Board meetings was held in a Minneapolis-area hotel room. Catherine Patla Paris, Stanley's wife and one of our committee chairs at that time, was late for the meeting. Her excuse when she showed up a few hours late was a good one. She had awakened early that morning and drove from the hotel out to Lake Minnetonka to attend the meeting. She didn't realize that the Lake Minnetonka room was in the same hotel where she slept. She deserves an award for being such a dedicated physical therapist!

The postprofessional education of the physical therapist and physical therapist assistant has been the heart of my service to the Section. As a profession we are moving toward the Doctor of Physical Therapy degree (DPT). Ten years after graduating from a bachelor's program, I completed my master's degree to keep up with the changing profession. It took almost 3

years of trying to study with a toddler underfoot to get to that level only to find that now, with 2 young children, I need to transition to the DPT. Imagine how the remaining bachelor-level physical therapists feel. There is a giant step that needs to be taken from the bachelor's level to the doctoral level and it includes training in diagnosis, medical screening, radiology, pharmacology, and research.

In Bill Boissonnault's Paris Award Lecture, Bill asked you to imagine that you are on an airplane seated next to an orthopaedic surgeon. The surgeon asks, "What makes you as a physical therapist, a doctor?" It is an interesting question. As doctors of physical therapy are we similar to physicians, or optometrists, or attorneys, or are we our own special combination? As we transition to the doctorate level and move toward autonomous practice, what can we do to be sure that those therapists who don't have the degree or the additional training get what they need to treat patients without a referral? The doctoral degree and autonomy go hand in hand. If we can succeed at medical screening and differential diagnosis, we will succeed as autonomous practitioners of physical therapy.

I will be sitting next to an orthopaedic surgeon on the way home and have been sitting next to an orthopaedic surgeon for the past 10 years. Our discussions usually consist of our 2 main passions and that is our children and our professions. He, and the majority of his colleagues, believes that physical therapists are not ready for autonomous practice and direct access. The American Academy of Orthopaedic Surgeons in a letter to Congress (<http://www.apta.org/documents/Private/GovtAffairs/AAOSCongressionalEmail.pdf>) has said, "allowing direct access to Physical Therapists under Medicare takes physicians out of the diagnosis process, when in fact, physicians are best trained and equipped to provide the thorough diagnosis that patients need and deserve. A thorough medical diagnosis is especially critical to Medicare beneficiaries who have a higher likelihood of experiencing multiple serious conditions."

While it is true that physicians may be best trained and equipped to provide the thorough patient diagnosis, we do not need to be medical doctors to practice physical therapy without a referral. We do not need a thorough knowledge of medical diagnostics but we do need to know when a problem is beyond the scope of physical therapy. Are we there yet? Can we trust that our fellow physical therapists are ready for autonomous practice? A colleague and active member of the American Physical Therapy Association (APTA), meaning someone who attends many of these meetings, said, "Yes, we are ready and have been for years." Another colleague stated, "Physical Therapy programs have for the most part adjusted their curriculums and have woven medical screening into clinical courses so it is not a long-term problem." While the current graduates and the average PT who attends meetings such as these may be ready for autonomous practice, what about the other average therapist out there? According to the Bureau of Labor Statistics (http://www.bls.gov/oes/current/oes_29he.htm) there are over 137,000 physical therapist employed in the United States. A reasonable estimate would be that 50% of those are at the bachelor level. Is that 50% prepared for autonomy?

The majority of therapists where I live are at the bachelor level. We have an active study group that is supported by the Orthopaedic Section CEU program. During one of our study group sessions, we had an interactive discussion on the shoulder. There were approximately 20 therapists present with broad ranges of experience. Usually study groups or presentations consist of 1 or 2 people talking and feeding information. This session was unique in that therapists from new graduates to near retirees were contributing to the discussion of the shoulder. During this stimulating session, I suggested that we should also discuss differential diagnosis. I received a lot of blank looks. Having practiced in Florida, California, South Carolina, Georgia, and Maryland, and in hospitals, private practices, research institutions, and outpatient clinics, I know this lack of response isn't an isolated incident. As therapists we know the pathophysiology, but we are accustomed to having that safety net of the physician referral and we assume the medical screening has already been

“
If we can succeed
at medical screening and
differential diagnosis,
we will succeed as
autonomous practitioners
of physical therapy.
”

done. We are moving toward changing our thinking and our practice patterns to realize that with or without physician referral, the patient we are treating for thoracic area pain could have anything from musculoskeletal problems to heart burn or a heart attack.

If you are sitting in the audience thinking, "Well, I practice this way right now." Then allow me to take it a step further. The National Center for Chronic Disease Prevention and Health Promotion reports on their website (http://www.cdc.gov/nccdphp/aag/aag_cvd.htm) that, "Heart disease and stroke—the principal components of cardiovascular disease—are the first and third leading causes of death for both men and women in the United States, accounting for nearly 40% of all deaths. About 90% of middle-aged Americans will develop high blood pressure in their lifetime, and over 70% of people with high blood pressure do not have it under control."

Ninety percent of Americans developing high blood pressure and 70% not having it under control are staggering numbers. It is possible that some of those 70% or 90% may be seen in your clinic for musculoskeletal problems. Probably every physical therapy clinic in the United States has middle-aged or older clients exercising on bikes, recumbent trainers, weight machines, or treadmills. How many of those clinics check the patient's blood pressure before, during, or after exercise? In the process of recovering our patients from a joint replacement or back injury their musculoskeletal system isn't the only system that responds to our exercise prescription. Autonomous doctors of physical therapy know that and have a stethoscope slung around their necks, in their pocket, or accessible in the gym. An abnormal response to exercise can indicate a larger problem that an autonomous practition-

er would refer to a physician. As doctors of physical therapy, we don't diagnose the specific medical problem but we know what isn't normal and refer if indicated.

Medical screening is, of course, much more than simply taking a blood pressure. The Orthopaedic Section has made some strides in the area of educating autonomous practitioners. The recent Medical Screening Independent Study Course is one example. Incidentally, the picture on the monograph cover was a stethoscope in a white lab coat pocket. The Section has also sponsored continuing education courses at APTA conferences. These efforts reach the small percentage of therapists who attend or enroll in the offered courses. In the best interest of the physical therapy profession, we need to reach beyond our 14,000 members and 22,000 subscribers to the *Journal of Orthopaedic and Sports Physical Therapy*. I ask that the therapists involved in the Orthopaedic Section's website, and the Section's magazine and journal to consider what they can do for members and nonmembers alike to encourage bachelor and master's level physical therapists to prepare for autonomous practice. This may include education in the areas of medical screening, radiology, and pharmacology, to the basic etiquette and procedure for writing a referral. The *JOSPT* recently published a case problem on differential diagnosis of a soft tissue mass in the calf. The Section website could direct members and nonmembers to that journal article and offer continuing education units (CEUs) at no cost for members and a nominal cost for nonmembers.

I also ask each of you here to go back to your local area and start a study group. You can reach the therapists who will benefit vicariously from your association activism and you will have an impact where it counts—at home. Our area study group began 3 years ago. We meet every other month at a different clinic and offer CEUs from the Orthopaedic Section. The CEUs help to encourage attendance. We usually begin with a summation of APTA and state news and then have an interactive education session. At different times we have invited area physicians in to discuss topics with us. The rewards of the study group benefit everyone. The therapists in our area have gotten to know one another and discov-

ered who has the specialty knowledge and can be called on when you have a specific patient problem. The physicians and patients benefit from our continuing education efforts and increased interaction, and the APTA and Orthopaedic Section have benefited with new members. I encourage you to make the effort; please call or e-mail me or the Orthopaedic Section if you need help getting started.

As a profession we are moving in the right direction for direct access and autonomous practice. Our entry-level programs are doing their part in preparing tomorrow's physical therapists for autonomy. Many of today's physical therapists are preparing by transitioning to the Doctor of Physical Therapy degree, and the APTA is helping us move in the right direction politically. Let's not leave any group behind. Ask yourself what you can do to help your fellow therapists in their move toward autonomous practice and direct access and then do it. It will benefit everyone.

Receiving an award like this is an honor in that someone recognizes that you worked hard for an organization. There are the people who made this possible and at the top of the list is my husband, Don. Many of you know him on a personal and professional level. He has participated as an invited speaker at CSM and as a writer for the Home Study Course. He bailed the Section out when a radiologist failed to submit a monograph for one of the Home Study Courses. Don not only wrote the manuscript but he refused to take the honorarium for writing it. As a previous hospital administrator, he taught me how to be an efficient and effective member of the Board of Directors. He taught me the importance of delegation and how to disagree without getting personal. Don is now an orthopaedic surgeon and one I am very proud of. His patients, nurses, and office staff think highly of him. He is one of physical therapy's biggest supporters and works with therapists from many settings. His patients are spread out over 3 counties and the majority of them have been referred to physical therapy. He does not refer them because he owns a physical therapy service, which he doesn't, but he refers because he believes that physical therapy is what is best for his patients. As a surgeon his work is not complete without a physical therapist. He gives them form and we, as therapists, give them function. Not only does he support physical therapy but he has been the wind beneath my wings when it comes to my service to the Orthopaedic Section. His support made it possible for me to devote the time and energy to the Section that I have been able to devote over the years. In fact, whenever I wanted to quit, he urged me to continue even though many times it meant he had to deal with the 2 kids, 2 cats, 2 dogs, 2 fish tanks, and 2 horses while I was gone.

Others who have made my service to the Section possible are my Mom and my Aunt Edith who have traveled with me to many Section meetings as babysitters to my 2 wonderful daughters, Christy and Nadia. My Dad is responsible for instilling in me his ethic for hard work and for sharing Mom all those times she traveled with me.

I also want to thank all of you who I have worked closely with over the years. What I have given in service I have reaped so much more in rewards. I have learned, thrived, and grown from your friendship, your advice, your criticism, and your dedication to the Section.

Finally tonight I dedicate this Distinguished Service Award to my parents. Within 3 years time, my Mom progressed from a Grandma who could play on escalators with her grandchildren to completely wheelchair bound. She has come through it all with a sweet disposition, a nonwavering faith in God, and a smile on her face. My Dad who is her husband, friend, and caretaker exemplifies the meaning of the words, "in sickness and in health till death do us part." I thank them for their dedication to each other, and I thank all of you for this honor.

THE JANET G. TRAVELL, MD SEMINAR SERIES SM

**Course Schedule 2005
CME/CEU Approved!**

Foundations of Trigger Point Examination and Treatment

September 16 - 18, 2005
December 2 - 4, 2005

Low Back and Pelvic Pain

March 4 - 5, 2005
November 4 - 5, 2005

Extremity Pain

April 8 - 10, 2005

Head, Face, Neck, and Shoulder Pain

May 20 - 22, 2005

Trigger Point Needling

June 3 - 5, 2005

Program Directors:

Robert Gerwin, MD, Jan Dommerholt, PT, MPS
Information can be found online at www.painpoints.com

Workshops held in Bethesda, MD, a suburb of
Washington, DC (USA)

**Interested in sponsoring a course
For information, contact Ms. Avelene Mahan
at Myopain Seminars
7830 Old Georgetown Road, Suite C-15
Bethesda, MD 20814-2432
At 301.656.0220 (phone), 301.654.0333 (fax)
mahan@painpoints.com (e-mail)**

Two announcements...

Lauren's New Workplace PT Consulting Program...

MSD-CTD Prevention Program... and... other workplace PT services...

"No-Lost-Time" is a unique workplace **"MSD Prevention School"** program

... a new format of **Back School** and **Upper Extremity School!**

... plus a complete set of other workplace consulting services.

By **Lauren Hebert, PT, OCS**, one of America's most experienced and successful work injury experts. Lauren has provided injury consulting programs to more than 500 workplaces since 1980. He has helped hundreds of therapists establish their own workplace PT consulting practice.

"No-Lost-Time" is Lauren's newest format of Back School and Upper Extremity School.

...Reduces MSD injuries and costs by 60 to 80 percent.

...Fees average \$200/hour, billed directly to the workplace, no insurance billing.

"No-Lost-Time" is more; actually a **complete workplace consulting practice** in-a-box,

...This goes beyond prevention programs... a complete set of Workplace Consulting services.

...Complete Consulting Practice Guide, plus Marketing Plan and materials.

...Includes... negotiating Preferred PT Provider Contracts with workplaces; On-Site PT clinics; Pre-Placement Screening; Set up their Restricted Duty Program; treatment tactics; more!

Preview "No-Lost-Time" at www.smartcarept.com... or call **207-562-8048**

Seminar... Build a Workplace Consulting Practice

A seminar that re-defines careers and builds powerful practices.

Lauren Hebert, PT, OCS, has provided Work Injury Consulting to more than 500 workplaces since 1980. Lauren is one of America's most experienced and successful workplace PT consultants. He has helped hundreds of PT's build their Workplace Consulting, Occupational Health services.

Lauren presents his 25 years of workplace consulting experience in a complete, structured, step-by-step collection of Occupational Health PT services for PT's to bring to their community.

This seminar teaches how to...

...provide an effective BACK SCHOOL and UPPER EXTREMITY SCHOOL

...perform Ergonomics Problem-Solving

...negotiate Preferred PT Provider agreements with employers

...provide On-Site PT Clinic hours at workplaces

...provide Pre-Placement Screening of employees

...help the workplace establish a Restricted Duty Program

...correct workplace policies, politics & attitudes that affect Worker Comp costs

...special emphasis ...MARKETING PT SERVICES TO INDUSTRY

This course provides an extremely practical, step-by-step practice development plan. Greatly reduce injuries and Worker Comp costs. Note: workplace consulting fees run \$200/hour, billed directly to the workplace.

DATE... Cincinnati, OH, June 4-5

...also available as a self-study course

Preview all this at www.smartcarept.com... or call **207-562-8048**

The Practical Use of Evidence-based Practice in Determining the Best Treatment for a Patient with Recurrent Achilles Tendonitis

Edward A. Goodnite, PT, MS

This article was submitted on behalf of the Research Committee.

INTRODUCTION

While some authors have suggested that evidence-based practice (EBP) may be an impractical system,^{1,2} clinicians should still consider EBP a practical tool they can use to enhance the delivery of care in their clinical setting. As Beattie³ emphasized, the process of EBP only requires Internet access, a minimal time investment, and the desire to provide the best patient care through discerning review of relative research. Any clinician can use an EBP process without having advanced skills in research design or statistical analysis. The purpose of this paper is to illustrate the practical use of EBP in determining the best treatment for a patient with recurrent Achilles tendonitis. In this case, we used the EBP process as described by Sackett et al⁴ and as presented by Beattie.³

PATIENT HISTORY

The patient was a 37-year-old male who was an avid runner and was currently training for a marathon in 8 months time. He was a competitive runner in short distance races with a 10k race being his longest competitive race. His typical race finish times for a 5k/10k event would be 16 minutes and 30 to 40 minutes respectively. When he decided to attempt a marathon, he developed bilateral Achilles pain 2 to 3 weeks after increasing his distance and frequency of runs. His symptoms would develop after 30 to 45 minutes of running—interestingly coinciding with the time he typically was finishing a race. He had no previous lower extremity injuries or episodes of Achilles pain and his symptoms would only appear during his running. At this point, he consulted his MD who prescribed an initial treatment of NSAIDs, rest, stretching, and a walking/ jogging program—given through a PT referral. This initial PT treatment also included

ultrasound, massage, ice, and orthotics. His symptoms were never recreated during this 3-week treatment period. However, upon resuming his training program, his pain returned when he had exceeded 30 to 45 minutes of running time. He then spoke with his MD and asked for a different PT consultation.

In the physical examination, he demonstrated normal erect posture and no abnormalities or signs in any joint above the ankle. He had no rearfoot deformity but did have a varus forefoot that was compensated. He wore shoe inserts to correct the overpronation the varus forefoot would cause. Gastrocnemius and soleus length was within normal limits bilaterally and symmetrical. Lower extremity strength testing revealed no abnormalities and was symmetrical bilaterally. Overall this patient was in excellent physical shape and presented with no clinically significant findings. The only time his symptoms were present was after he had run for more than 30 minutes. The patient reported these symptoms as a local 8/10 pain just above the Achilles insertion that would be intense enough to make him stop running.

Evidence in Practice

At this point a patient problem had been identified which raised a clear question, *what is the best current treatment for a middle aged, active runner referred to PT for a recurrent tendonitis/tendinosis diagnosis?* The patient had previously received PT intervention that would be considered appropriate intervention but with no resolution of his symptoms. A literature review appeared to be warranted.

The number of online resources for clinicians is huge and growing every day. PubMed.com is free which makes it available to anyone with Internet access and, most importantly, is easy to use. However as Beattie³ pointed out, PubMed may miss some relevant research papers. Therefore, to negate this problem, it is highly recommended to use any assets

your community or employer may have to access library databases. For this particular patient the Medline, Ovid, and Amed databases were used to do the literature search using the keywords: Achilles, tendonitis, tendinosis, randomized clinical trial, running injury. To compare results, a PubMed search also was done following Beattie's³ guidelines and using the history feature to cross link searches. The result being no loss of research articles of interest. The literature search was done at the end of the day, took 1 hour, provided 7 downloaded pertinent articles, and resulted in a treatment plan for this patient.

LITERATURE REVIEW

The first paper of interest was by Stanish et al.⁵ This paper was not a randomized clinical trial but did provide a good classification and pathology discussion as well as broadly dividing treatment into rest and activity. Rest in this case being cessation of activity coupled with taping and supports (orthotics). The main reason this paper was unique is that a theoretical training program based on eccentric strengthening was presented. However, at the time it was only an untested approach.

The next paper of interest was by Alfredson and colleagues.⁶ It referenced the 1985 Stanish paper and noted that no data on eccentric training had been reported. This paper was a prospective study and showed that heavy load eccentric training had a very good short-term effect on athletes in their early 40s. One hundred percent (15/15) of the patients receiving eccentric training were symptom free after 12 weeks of treatment, whereas 0% (0/15) of the patients receiving concentric training did not have any symptom reduction and eventually all had surgery.

The third research report that had relevance to our patient problem was a 1999 report on nonsurgical treatment by Angermann et al.⁷ This study was done by 2 physicians who used an exercise

program based on a 1991 *Journal of Orthopaedic Sports Physical Therapy* study⁸ that emphasized concentric velocity dictated training with rest (heel lift), ultrasound, stretching, and massage. Out of the 22 patients treated, 70% had reduced symptoms and resumption of activity short term. Long-term results decreased to 65%. This report was very applicable to our patient because he had been treated with this regimen and was not successful with the treatment prescribed. Interestingly, this study also recommended surgical consideration for those patients not responding to 3 to 6 months of treatment.

Our fourth study by Mafi and associates⁹ reported that 82% of patients treated eccentrically resumed activity without pain as compared to 36% of patients treated concentrically. The average age of these patients was 48.

After reviewing 4 articles, eccentric training seemed like it was a possible treatment course but the results noted so far had only been short-term results. We still wanted to know, was there anything showing long-term results?

Because our other search results clearly focused treatment on eccentric training, we were very surprised to see this 2002 article by Mazzone and McCue¹⁰ advocating the mainstay of treatment for tendonitis as ice, rest, NSAIDS, with physical therapy, orthotics, and surgery possibly necessary in recalcitrant cases. The article discussed common Achilles injuries and presented 3 cases to illustrate the common injuries but did not note any outcomes, yet it advocated a treatment. This illustrates exactly what Beattie³ meant by appraising the research. You must always judge the validity and strength of research conclusions. While the actual article is rather invalid as a research article, we did take note that letters to the editor refuted the article by saying eccentric training should be considered the preferred therapy. These letters noted actual clinical results and referenced the research we have already mentioned.

We chose our next article by Fahlstrom and colleagues¹¹ as relevant because it reported eccentric training in patients with mid-portion Achilles tendinosis (2-6 cm above insertion) had an 89% success rate. However, this report went further and reported insertional

“
After reviewing 4 articles,
eccentric training seemed like it
was a possible treatment course
but the results noted so far had
only been short-term results.

We still wanted to know,
was there anything showing
long-term results?
”

Achilles tendon pain only had a 32% success rate. The study concluded that a good diagnosis was critical in the successful treatment of Achilles tendinosis and eccentric training may not be the best treatment choice for insertional Achilles pain.

Finally, we considered a 2003 article by Alfredson.¹² This article reviewed recent pathogenesis research and noted that there is very sparse scientific evidence in support of most of the conservative and surgical treatments proposed or used in the treatment of Achilles tendinopathy. It also mentioned the importance of a correct diagnosis in successful treatment and noted that at the time of publishing, eccentric training for midportion Achilles tendonitis in his clinic had a 90% success rate.

CLINICAL DECISION

Having identified pertinent research related to our patient problem and considered its validity and strength, we elected to begin a 12-week eccentric program as outlined by Alfredson.⁶ In brief, the program consisted of 2 types of eccentric exercises — loading of the calf muscles with the knee bent and with the knee straight; 3 sets of 15 repetitions using body weight to start. No concentric loading was done following the eccentric load. Only eccentric loading was performed with the patient being told to continue even if he experienced pain unless the pain was disabling. The exercises were done 2 times per day each day of the week for 12 weeks. When he would experience only minor pain or discomfort, the patient would increase the load by using a backpack loaded with weight. Our patient was

allowed to run only if it could be done with mild discomfort and no pain.

Our patient matched what we found in the research in terms of age and diagnosis of mid-portion Achilles tendonitis and had no clinically significant findings during the initial examination. His only complaint was 8/10 pain when he ran for more than 30 minutes. He was compliant with the program and was able to successfully progress his marathon training after 3 weeks of beginning his eccentric training program. The patient's final outcome was successfully training and completing his first marathon without Achilles symptoms.

CONCLUSION

By using EBP, we found useful research information that allowed us to clinically develop a successful treatment program for a patient with recalcitrant Achilles tendonitis. Interestingly there were some by-products of our literature review that were also very useful in the clinic. We found a VISA-A questionnaire¹³ both valid and reliable in documenting Achilles tendinopathy outcomes. We also found an interesting case report by Greene¹⁴ where she reports on the correct identification and treatment of medication-induced Achilles tendinopathy. Undoubtedly this information would be essential to a clinician when performing an initial examination and determining a differential diagnosis. Had we not used EBP and done the review of literature, we might never have come across this useful clinical information.

As Beattie³ noted, the use of EBP provides an important tool for clinicians when they are faced with a clinical problem that requires insightful clinical decision-making. Periodically reviewing research and integrating valid results into the clinic is vital to the maturation and development of all clinicians and the continued growth of all medical professions.

REFERENCES

1. DiFabio RP. Myth of evidence-based practice. *J Orthop Sports Phys Ther*. 1999;29:632-634.
2. DiFabio RP. What is evidence? *J Orthop Sports Phys Ther*. 2000;30:52-55.
3. Beattie P. Evidence-based practice in outpatient orthopaedic physical

- therapy: using research findings to assist clinical decision making. *Orthop Phys Ther Practise*. 2004;16(3):27-29.
4. Sackett DL, Straus SE, Richardson WS, et al. *Evidence-based Medicine: How to Practice and Teach EBM*. 2nd ed. Edinburgh, Scotland: Churchill Livingstone; 2000.
 5. Stanish WD, Curwin S, Rubinovich M. Tendinitis: the analysis and treatment for running. *Clinics Sports Med*. 1985;4(4):593-609.
 6. Alfredson H, Pietila T, Jonsson P, Lorentzon R. Heavy-load eccentric calf muscle training for the treatment of chronic Achilles tendinosis. *Amer J Sports Med*. 1998;26(3):360-366.
 7. Angermann P, Hovgaard D. Chronic Achilles tendinopathy in athletic individuals: results of nonsurgical treatment. *Foot Ankle Int*. 1999;20(5):304-306.
 8. Reynolds NL, Worrell TW. Chronic Achilles peritendinitis: etiology, pathophysiology, and treatment. *J Orthop Phys Ther*. 1991;13:171-176.
 9. Mafi N, Lorentzon R, Alfredson H. Superior short-term results with eccentric calf muscle training compared to concentric training in a randomized prospective multicenter study on patients with chronic Achilles tendinosis. *Knee Surg Sports Traum Arthrosc*. 2001;9:42-47.
 10. Mazzone M, McCue T. Common conditions of the Achilles tendon. *American Fam Phys*. 2002;65(9):1805-1810.
 11. Fahlstrom M, Jonsson P, Lorentzon R, Alfredson H. Chronic Achilles tendon pain treated with eccentric calf muscle training. *Knee Surg Sports Traum Arthrosc*. 2003;11:327-333.
 12. Alfredson H. Chronic midportion Achilles tendinopathy: an update on research and treatment. *Clinics Sports Med*. 2003;22(4):727-741.
 13. Cook J. Letter to the editor. *Manual Ther*. 2003;8(3):190-191.
 14. Greene BL. Physical therapist management of fluoroquinolone-induced Achilles tendinopathy. *Phys Ther*. 2002;82:1224-1231.

Edward Goodnite is a Transitional Doctor of Physical Therapy candidate, Department of Physical Therapy, School of Health and Rehabilitation Sciences at the University of Pittsburgh.

One HANDLE — 3 POSITIONS



The MARV™ Therapy & Fitness Handle gets to the core of upper body resistance exercise by properly engaging the wrist, allowing your patients and clients to implement prescribed exercise protocols with less effort and improved results.

MARV™ can be used with all resistance tubing.



AVAILABLE NOW

- > MARV™ Handles
- > MARVtec™ Tubing
- > MARV™ Overdoor Pulley
- > MARV™ Shoulder Kit
- > MARV™ Wrist and Elbow Kit

MARV™

MULTI-ANGULAR ROTATING VECTOR HANDLE



Get a FREE sample

Request a FREE sample of MARV Handle and MARVtec tubing at www.marvtec.com today. Enter code 3733 on the home page.

Call your medical or fitness supplier for MARV™ products or go to www.therapyzone.com
Learn more about MARV™ products and technology at www.marvtec.com

DISTRIBUTED INTERNATIONALLY BY TherapyZone, Inc. • DENVER, COLORADO

TherapyZone
Get Well. Stay Well.



Evidence in Motion, LLC
508 Thurber Dr.
Schertz, TX 78154-1146 (USA)

Ph: (210) 363-5237 ● Fax: (210) 579-2637
info@evidenceinmotion.com ● www.evidenceinmotion.com

Register on-line today! ● Early registration recommended.

● **Join your colleagues** in these **hands-on, evidence-based** seminars that integrate your clinical expertise with **current evidence** for physical therapy clinical examination and interventions for the cervical spine, lumbar spine, pelvis, and hip. **Extensive laboratory sessions** are included throughout the two days to achieve proficiency in selected **thrust and non-thrust manual physical therapy** interventions. Visit our website at www.evidenceinmotion.com to learn about other seminar offerings. **Check back frequently for updates!**

**Evidence-based Examination and Selected Interventions
for Patients with Lumbopelvic Spine and Hip Disorders (1.5 CEUs)**

2005: Apr 2-3 (Tucson, AZ) ● Apr 9-10 (Concord, NH) ● Apr 23-24 (Fairhope, AL) ● Nov 5-6 (Victoria, BC)

**Evidence-based Examination and Selected Interventions
for Patients with Cervical Spine Disorders (1.5 CEUs)**

2005: Sep 10-11 (San Antonio, TX) ● Sep 17-18 (Brooklyn, NY)

2006: Mark your calendars! ● Mar 4-5 (Victoria, BC) ● Apr 1-2 (Tucson, AZ)

● **Objectives:** Upon completing these courses, you'll be able to:

1. Incorporate information from self-report measures and the history and physical examination to guide evidence-based decision-making.
2. Demonstrate evidence-based clinical examination skills.
3. Synthesize examination findings to establish an accurate diagnosis and prognosis.
4. Select and demonstrate manual physical therapy and exercise interventions based on current best evidence.

Faculty: John D. Childs, PT, PhD, MBA, OCS, FAAOMPT



Dr. Childs is a Senior Physical Therapist and Director of Research at Wilford Hall Medical Center and Postdoctoral Research Fellow in the Department of Physical Therapy at the University of Pittsburgh. He is board-certified as an Orthopaedic Clinical Specialist and is a Fellow in the American

Academy of Orthopaedic and Manual Physical Therapists. Dr. Childs is internationally recognized by his peers for his expertise in advanced clinical examination techniques, evidence-based practice, and manual physical therapy. Actively involved in clinical research related to identifying subgroups of patients with low back and neck pain, he has received numerous grants from federal and professional funding agencies and has published over 20 manuscripts in leading peer-reviewed journals. Dr. Childs is an Associate Editor for the *Journal of Orthopaedic and Sports Physical Therapy*.

Faculty: Timothy W. Flynn, PT, PhD, OCS, FAAOMPT



Dr. Flynn is an Associate Professor and Coordinator of the newly developed Manual Therapy Fellowship in the Department of Physical Therapy at Regis University (www.regis.edu/tdpt). Dr. Flynn is board certified in orthopaedic physical therapy and is a Fellow of the American Academy of

Orthopaedic Manual Physical Therapists. He has served as lecturer in professional and post-professional physical therapy programs and has made numerous presentations at scientific meetings. Dr. Flynn is widely published in the peer-reviewed literature, editor and author *The Thoracic Spine and Ribcage- Musculoskeletal Evaluation & Treatment* and author of 3 educational CD-ROMs on Orthopaedic Manual Physical Therapy. Dr. Flynn is the President of Manipulations, Inc. (www.manipulationsinc.com) and is an Associate Editor for the *Journal of Orthopaedic & Sports Physical Therapy*.

How do I register? Register on-line at www.evidenceinmotion.com. These are hands-on interactive courses with a significant lab component. Registration is limited to provide maximum interaction with faculty. Admission is on a first-come/first-served, space-available basis. **Early registration recommended.**

 **Translating Evidence into Practice** 

Acetabular Labrum Tears: A Late Complication of Legg-Calve-Perthes Disease

Mark D. Beissel, PT, DPT, OCS, FAAOMPT

INTRODUCTION

Tears of the acetabular labrum present many diagnostic and treatment challenges, and until recently, there has been a paucity of peer-reviewed literature on the subject.¹⁻¹⁰ Recent advances in magnetic resonance imaging (MRI) and hip arthroscopy technology have made this diagnosis more common, and successful surgical treatment of this condition is becoming available at major orthopaedic surgery centers.^{1,5-7} Patients with this condition generally present as 2 major types: (1) a young person with a twisting injury to their hip and (2) an older person with a history of hip and/or acetabular dysplasia. If not diagnosed early, these tears lead to degenerative changes of the femoral head and acetabulum, and may be a significant cause of early osteoarthritis (OA) of the hip.^{1,3,5,6,10-12} The purpose of this article is to demonstrate the clinical decision making leading to the diagnosis of an acetabular labrum tear (ALT) in a 53-year-old male with a history of Legg-Calve-Perthes Disease (LCPD) and mild trauma to the affected hip.

BACKGROUND

Examination (History, Systems Review)

The patient is a 53-year-old male with a diagnosis of healed LCPD. At the age of 19, the patient presented to the university student health service with a complaint of backache. A plain film radiograph of the lumbar spine revealed a hip deformity, diagnosed as healed LCPD. The patient had not complained of hip pain during childhood, but the deformity and abnormal physical examination suggested an earlier event as the cause of the problem. A current medical questionnaire revealed medical diagnoses of hypothyroidism, hypertension, degenerative disk disease at L5-S1 and C5-C6, and hypercholesterolemia. Surgical history revealed appendectomy at age 15 and tonsillectomy at age 26. Systems review as described in the *Guide to Physical Therapist Practice*¹³ did not reveal any

abnormalities except for gross asymmetry in standing, decreased range of motion, and strength of the right hip. Locomotion also was abnormal with a limp favoring the right lower extremity present.

At the time of the diagnosis of LCPD, it was determined that a short right leg of approximately 3 cm was present and the patient was experiencing right groin pain and a limp at the end of a day. Roughly 35 years passed with varying degrees of pain and impairment, and a relatively active work life and mild to moderate exercise. In May 2001, the symptoms changed significantly for the worse, and were probably related to a 'head over heels' fall off a bicycle. The symptoms worsened over the next 3 to 4 months and it became very hard to work, walk, and perform activities of daily living. A sharp pain developed deep in the groin, and a sensation of locking occurred halfway up from arising from sitting. Gradually a 'click' or 'thud' occurred with pivoting or twisting while weight bearing, and the patient sought a medical opinion.

DIAGNOSIS

An AP pelvis (weight bearing) radiograph (Figure 1) was done and the radiologist's findings were as follows: Evidence of likely LCPD, with irregularity of the inferior aspect of the femoral head, and a high riding greater trochanter. There is a short femoral neck with varus alignment, and reasonably



Figure 1. Weight bearing radiograph of June 2001.

well-preserved superior joint space, with incomplete lateral coverage of the femoral head. The acetabulum is mildly shallow and dysplastic. The radiologist's impression was moderate OA, with shortening of the right lower extremity. The radiograph showed partial subluxation of the femoral head laterally, and it appeared possible that this would be an area of high stress on the anterosuperior aspect of the acetabular labrum.

The patient sought an opinion from an orthopaedic surgeon who recommended a total hip replacement. The patient was told that this current problem was the inevitable progression of the LCPD to osteoarthritis.

A physical therapy evaluation demonstrated the following results:

Range of motion (ROM) right hip: flexion 100°, extension 5°, abduction 25°, adduction WNL, external rotation 15°, internal rotation 20°. Pain reproduced with flexion-adduction-internal rotation test, and passive hip extension test.^{3,5}

Muscle grades right hip: flexors 4/5, extensors 4/5, abductors 3+/5, adductors 4/5, external rotators 4/5, internal rotators 4/5, quadriceps 4/5, and hamstrings 4/5, and pain with repeated resisted SLR.^{3,5}

Gait: The patient presented with a mild Trendelenberg⁵ limp favoring the right side and decreased hip extension. There was approximately 3.0 cm shortening of right LE. The patient wore a full sole gradual taper 18 mm lift on the right shoe.

Special tests: + Patrick test, + Thomas test, + 'grind' test, + Ober test.

Functional loss: Pain after 15 minutes of standing or walking, moderate difficulty with shoes and socks, stairs, squatting, bending over, lifting, sit to stand, and pivoting.

Pain Assessment: Visual analogue scale "0" no pain, "10" intolerable pain - reported as "5" (strong), and deep in joint. Harris¹⁴ hip score was 38.875 (poor).

An anterior hip pain algorithm developed by the author (Tables 1 & 2) was used to differentially screen for hypotheses in this case. In the history one should look for recent or old trauma, change in activity levels (usually increased), occupation, family history of arthritis, aggravating and relieving factors, medications, onset of symptoms, past surgery, and problems with the low back and sacroiliac (SI) joint. A plain film radiograph is recommended to rule in or rule out the many possible causes of SI joint and thoracolumbar pain. Sometimes an MRI or magnetic resonance arthrogram (MRA) and/or computerized axial tomography scan may be required. The most likely cause of hip pain in the adult would be osteoarthritis, characterized by osteophytes, decreased joint space, and subchondral sclerosis. Physical examination would show decreased ROM, especially in rotations, a positive Patrick's test (hip flexion, abduction, external rotation), positive 'grind' or 'scour' test (compression of the joint along the long axis on the femur at 90° flexion with concurrent ER/IR motion). If the grind or scour test is positive, there should be some relief with manual dis-

traction if the problem is OA. A positive Patrick's test also may implicate the SI Joint,⁵ so care must be taken in the interpretation and context of this test. Thomas and Ober tests are well described in the literature and will not be elaborated here. In children it is important to consider multiple etiologies (Table 3). Indicators of a high suspicion of ALT in adults are summarized in Table 4, all of which were positive in this case. An opinion was formed that further medical testing would be required to rule out this diagnosis.

An evaluation by a physical therapist is the process where clinical judgments are made based on the data gathered in the examination.¹³ The physical therapy diagnostic process is described in the *Guide to Physical Therapist Practice*,¹³ and the following diagnoses were made: Practice pattern 4D¹⁰ - Impaired Joint Mobility, Motor Function, Muscle Performance, and Range of Motion Associated with Connective Tissue Dysfunction, and pattern 4E¹³ - Localized Inflammation. No physical therapy intervention was recommended or initiated.

The evaluation and diagnosis process also may identify possible problems that

require consultation with another provider.¹³ The major impression from the examination was that an acetabular labrum tear may be present, and an opinion was formed that further medical testing would be required to rule out this diagnosis. A referral was made to a major medical center with expertise in the evaluation (especially MRI), and possible surgical treatment of this disorder.

The patient had an MRI (Figure 2) with the following interpretation by the radiologist: T1 sagittal image shows a large tear in the anterior labrum (see lines pointing to an area of increased sig-



Figure 2. MRI of March 19, 2002.

Table 1. Anterior Hip Pain Algorithm

Hip Joint	Thoraco-Lumbar	Soft Tissue	SI Joint	Systemic
Worse with Standing or Walking?	Worse with Thoraco-Lumbar Motion?	Worse with Palpation or Activity?	Worse with Uni-lateral Weight-Bearing?	"Red Flags"†
↓	↓	↓	↓	↓
Positive Patrick Test?	Better in Recumbent or Rest positions?	Positive Thomas Test?	Better with Back Support or SI Belt?	No Change with Movement.
↓	↓	↓	↓	↓
Correlates with Physical Exam and Imaging?	Correlates with Physical Exam and Imaging?	Correlates with Muscle Tests?	Correlates with SI Joint Relief or Provocation?	Refer to Medical Doctor.

There are many possible causes of anterior hip pain, originating in varied structures, tissues, or organs. It is a common patient complaint across all ages and both genders. If a patient with a pain drawing includes the anterior hip, groin area, and knee, careful examination and history taking will be essential to differentiate the possible causes. The most likely hypotheses would be:

- Adult OA of the hip joint.
- Soft tissue dysfunction.
- Thoraco-Lumbar pain referral.

† "Red Flags"

- Fever, weight loss, night pain, night sweats, infection.
- History of cancer, osteoporosis, prior surgeries, trauma, corticosteroid use, HIV.
- Over 50 years of age.
- No relief with rest or change of position.

Table 2. Hip Joint Screening to Rule Out Other Structures Causing Groin Pain

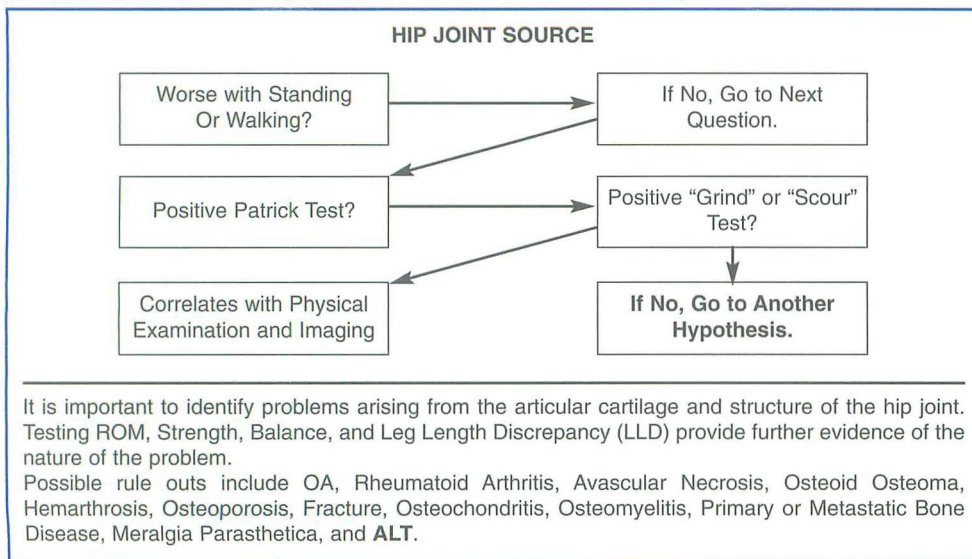
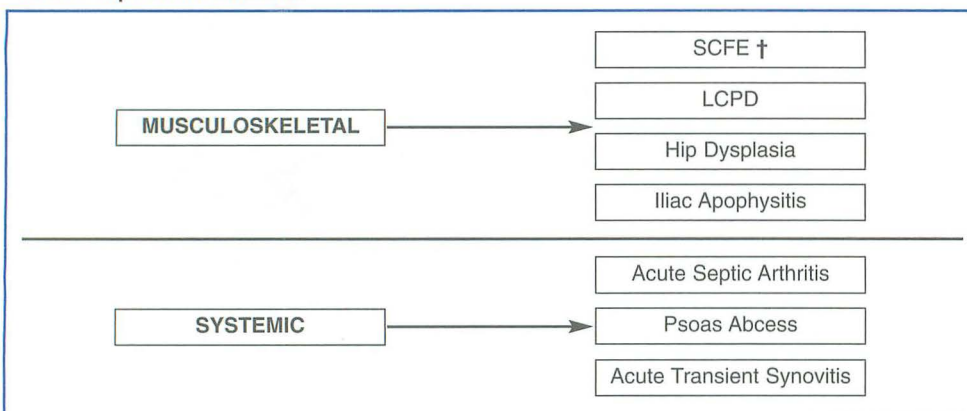


Table 3. Hip Pain in Children



If there is a positive Trendelenberg sign indicating gluteus medius weakness, and a limp with a LLD, an immediate referral to an Orthopedist is mandatory in our opinion. This list is not all-inclusive and serves only as a quick screening guide for thinking about hip complaints in children. There may also on be a complaint of knee pain in children when there is really referred pain from the hip; hence a careful exam of the hip and knee is indicated for both adults and children.

† **Slipped Capital Femoral Epiphysis (SCFE)**: Usually occurs between the ages of 10 to 15 with a male to female ratio of 2:1. Can come from direct trauma or suddenly without cause. Occasionally it is bilateral.

Legg-Calve-Perthes Disease (LCPD): Usually occurs between the ages of 3 to 12, with peak incidence at 6 years, and is predominately in boys. This results in an avascular necrosis of the femoral head.

Hip Dysplasia: A congenital condition of subluxation or dislocation of the hip joint. Can affect both the femoral head and acetabulum resulting in life long deformities.

Iliac Apophysitis: Inflammation of the iliac crest where the muscles attach. In females this can occur into the early 20s.

Acute Septic Arthritis: Bacterial infection of the hip joint accompanied by fever and chills, requiring immediate medical attention.

Psoas Abscess: Bacterial infection of the psoas muscle, presenting variable signs most often pain and a limp. Can be confirmed with CT and ultrasound studies.

Acute Transient Synovitis: Usually occurs in children ages 2 to 12 years, with a male to female ratio of 2:1. It is a nonspecific and self-limiting inflammation of the synovium that occurs without apparent cause.

Table 4. Indicators of Aceabular Labrum Tears

- History of twisting trauma to hip, usually relatively minor.
- History of hip dysplasia.
- Sharp pain with clicking or catching sensation.
- Increased pain with flexion, adduction, and internal rotation.
- Increased pain with passive hip extension.
- Pain with resisted straight leg raise.

nal). The image was performed with a special surface coil over the hip for high resolution, utilizing coronal fast spin inversion recovery, followed by coronal, sagittal, and axial fast spin echo techniques. There was partial thickness cartilage loss seen over a somewhat deficient anterior wall of the acetabulum and coxa magna (large femoral head with short wide femoral neck).

An arthroscopic procedure was done on March 21, 2002. A large anterosuperior tear was visualized and excised, and the associated synovitis was debrided with a laser (Figures 3 & 4). The femoral head was visualized and had areas of Grade III degeneration. The procedure was done on an outpatient basis, and the patient was discharged from the hospital the same day.

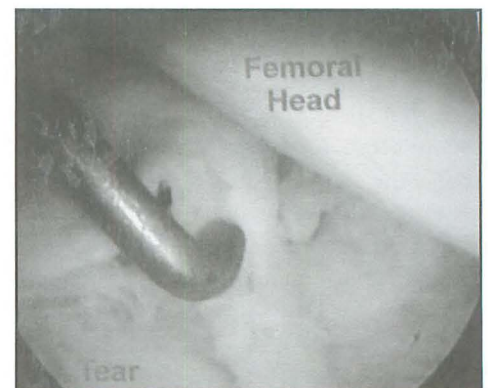


Figure 3. Arthroscopic picture showing ALT.



Figure 4. Tear removed and laser debridement.

DISCUSSION

The LCPD was simultaneously described by Legg, Calve, and Perthes in 1910 and remains one of the most controversial and poorly understood disorders in orthopaedics.^{9,15,16} The primary lesion is thought to be an avascular necrosis of the center of ossification of the femoral head,¹⁶ with the age of onset ranging from 3 to 15 years,¹⁵⁻¹⁷ and the average age of all cases was 5.4 years, but in the

radiologically poor cases the average age was 8.7 years.¹⁵ Also males were reported to outnumber females, by a ratio of 3.4 to 1.0.¹⁵ Unfortunately there are few studies of the true natural history of the disease;⁹ however, there are several studies of long-term follow-up available.^{6,9,11,12,15-17,20} It is known that the course and prognosis of the disease is highly variable;^{6,9,12,15-19} however, several studies have shown significant late effects of the disease, primarily osteoarthritis due to an irregular femoral head. The most important factor in the long-term prognosis is the extent of the deformity of the femoral head and the congruity of the joint.^{6,9,11,12,15,16,18,20} Some of the features of late LCPD are hip pain, osteoarthritis, flattened femoral head, acetabular deformity, coxa magna, subluxation, 'mushroom' deformity of the femoral head with a short broad femoral neck, leg length discrepancy (shortening), and an overgrown and high riding greater trochanter. Age of onset is known to have a bearing on long-term outcome, ie, better results occur at earlier ages (age 5 average) and results get poorer at 8 to 9 years of age.^{6,9,12,15-18,20} No studies are known to the author at this time that specifically relate ALT to late effects of LCPD. Two studies^{4,21} report a direct link between a history of hip dysplasia and ALT.

Tears of the acetabular labrum were first defined in papers by Dorrell & Caterall²¹ in 1986 and Ikeda et al²² in 1988. These studies describe the labrum tear in 2 special populations: young athletic persons and older persons with a history of acetabular dysplasia. These papers were the first to systematically describe the unique mechanical hip pain and symptoms associated with acetabular labrum tears, and drew parallels to the torn meniscus in the knee. Common findings on physical examination were anterior groin pain, 'clicking,' 'snapping,' or 'sharp' pain localized to the hip, and pain reproduced by flexion and rotation of the hip (especially internal rotation). Plain film radiographs are generally negative, but if narrowing of the superolateral joint space or acetabular dysplasia or cysts are present, there is a high level of suspicion for a tear.^{2,3,21,22,26} In the early days, arthrography was unreliable^{2-4,22-25} and arthroscopy was in its infancy with regard to the hip. The first arthroscopy report²² of 11 young patients stated that the tears were at the posterolateral

attachment of the labrum in 10 of the patients, and one was anterosuperior.

Fitzgerald³ conducted a comprehensive study of acetabular labrum tears in a landmark study in 1995. He described the evaluation of 56 hips in 55 patients who had an active life style and a catching type pain of the hip after a twisting or slipping injury, without an obvious explanation in the clinical history or physical examination. The average time to diagnosis was 35 months. The study also described the pain reproduced during physical examination with the flexion-adduction-internal rotation test, hip extension test, and resisted SLR test. It was reported that 92% of the tears were in the anterosuperior aspect of the labrum, in contrast to previous reports. Diagnosis was confirmed in most cases by arthroscopy, although some had open arthrotomy. Noguchi⁸ reported 120 hip arthroscopies in 1999 on patients with dysplasia, and confirmed that the tears were avulsion type injuries in the anterior or superior labrum. It was also stated that articular cartilage degeneration originates in this area from weight bearing stresses due to the abnormal anatomy, resulting from incomplete acetabular coverage of the femoral head.

Interest in magnetic resonance arthrography (MRA) became more intense and 2 reports^{23,25} were published in 1996. Petresilge²⁵ confirms that all the tears in her study were anterosuperior, and comments that conventional MR techniques are inadequate. Several studies were published in 2001-2003,^{1,4,7,10,24,26-29} and much more is now known about this lesion. McCarthy¹⁰ wrote a paper in which he suggests that there are 2 principle types of lesions: (1) fraying at the

labral-cartilage junction (watershed region) and (2) a region of separation of the labrum from the articular surface. An association between articular damage and labral pathology was postulated. Microvascular studies clarified that all of the labrum is avascular with the exception of its superficial capsular surface, and that there is evidence that this pathology may be a contributing factor in the development of osteoarthritis of the hip. Erb²⁷ reported that conventional MRI was useful in demonstrating inflammatory arthropathies, and the presence of joint effusions, but had modest to poor success with demonstrating abnormalities of articular surface cartilage and acetabular labrum. Hickman⁴ suggested that an acetabular labrum tear should be suspected in all patients presenting with hip pain and a history of dysplasia. Seldes et al²⁹ report a cadaver study of the labrum and found a high prevalence (95%) of labrum tears in the elderly (mean age of 78), and that most of these tears occur in the anterosuperior acetabular quadrant. Two distinct types of tears were identified histologically: (1) detachment of the fibrocartilaginous labrum from the articular hyaline cartilage at the transition zone and (2) one or more cleavage planes of variable depth within the substance of the labrum. Bryd³⁰ has published a comprehensive book on hip arthroscopy, and considerable information on the labrum tear is included in this landmark publication.

Physical Therapy Plan of Care (Post Op)

The physical therapy plan of care was based on a protocol described by Bryd,³⁰

Table 5. Physical Therapy Protocol for Hip Arthroscopy Patients

<p>Initial phase-days 1-7:</p> <ul style="list-style-type: none"> • Weight bearing to tolerance. • Isometric quad sets, gluteal sets. • AAROM all planes of motion. • Closed chain bridging, weight shifts, balancing exercise. • Open chain standing abduction, adduction, flexion, extension-no resistance. • Avoid SLR exercises. <p>Intermediate phase-weeks 2 to 3:</p> <ul style="list-style-type: none"> • Progress off crutches and normalize gait. • Progress ROM exercises to gradual end range stretch within tolerance. • Bike, if tolerated. • Open chain above knee resistive theraband or light pulley exercises. <p>Advanced phase-weeks 4 to 6:</p> <ul style="list-style-type: none"> • Continue flexibility exercises. • Progress resistive strengthening and closed chain exercises. • Functional activities as tolerated.
--

and was initiated at one week postoperatively (Table 5). Precautions included the avoidance of early straight leg raising (SLR) exercises due to the articular surface damage, and limited early weight bearing within pain and safety limits. The prognosis was fair due to the underlying LCPD, and the expected number of visits was 8 to 12 visits over a 4 to 6 week period.

Partial weight bearing as tolerated was begun with Lofstrand crutches on discharge from the recovery room. Home program included ice packs applied twice daily for 15 minutes and gentle stretching of the hip flexors. On day 3 isometric gluteal and quadriceps sets were initiated. Progression to one Lofstrand crutch occurred at 1 week postop and outpatient physical therapy was begun at a frequency of 1 to 2 times per week and a duration of 4 weeks. Gentle AAROM and isometric exercises were started and care was taken to protect the healing phase during the first 3 to 4 weeks. Early SLR was avoided,^{3,5} as the compression force is several times body weight. Soft tissue mobilization and cold packs were used to relieve pain and edema. Gait training was progressed with weight bearing as tolerated using a Lofstrand crutch. The exercise progression during the 4 weeks of physical therapy treatment included introduction of closed chain exercises, manual stretching of the hip flexors, stationary bicycle, leg press strengthening, functional and balance activities. Gait training progressed to a single straight cane at 5 weeks postop, and the patient was discharged to a home program.

Outcomes: Pain level dropped to '2' and the clicking was eliminated. Range of motion improved 5° to 10° in all planes and the limp was minimal. Hip abductor strength improved to 4/5. Harris hip score was 65.00 (poor). The Harris Hip Score may not be the best functional test for this case, as it was designed for evaluation of total hip arthroplasty.⁷

This case illustrates a common experience for patients with ALT, when often the diagnosis is delayed or not considered. In this case it was known that the patient had a history of LCPD and OA, with the difference being an acute incident of trauma, worsening symptoms over 10 months, and positive indicators of ALT. This led the authors to the opinion that OA could not explain all the

patients' symptoms, and a referral to an orthopaedic surgeon with special expertise in the diagnosis of this condition. Physical therapists should consider this condition in any patient with hip pain of undetermined or unclear etiology, especially when a patient presents with a history of twisting injury or other childhood hip disorders including LCPD and/or hip dysplasia. The MRI or MRA should be discussed with the patient's physician in those patients that are not responding to conventional treatment.

CONCLUSION

This case study illustrates the need for physical therapists to carefully and thoughtfully examine and evaluate a patient with hip pain if unclear or undetermined etiology is present. It appears that tears of the acetabular labrum are more common than is currently realized. Physical therapists can play a significant role in the diagnosis and treatment of ALT, and should be aware of the predisposing conditions of childhood hip disorders and twisting trauma that may indicate that this problem is present in adult patients reporting anterior hip pain.

ACKNOWLEDGEMENT

The author wishes to acknowledge Robert Buly, MD for copies of the MRI and arthroscopy pictures used in this article. No grant money was provided for this article.

REFERENCES

1. Bryd JW. Osteoarthritis caused by an inverted labrum: radiographic diagnosis and arthroscopic treatment. *Arthroscopy*. 2002;18(7):741-747.
2. Bryd JW. Labral lesions: An elusive source of hip pain case reports and literature review. *Arthroscopy*. 1996; 12(5):603-612. Review.
3. Fitzgerald RH Jr. Acetabular labrum tears: diagnosis and treatment. *Clin Orthop*. 1995;311:60-68.
4. Hickman JM, Peters CL. Hip pain in the young adult: diagnosis and treatment of disorders of the acetabular labrum and acetabular dysplasia. *Am J Orthop*. 2001;30(6):459-467. Review.
5. Kelly BT, Williams RJ, Phillipon MJ. Hip arthroscopy: current indications, treatment, options, and management issues. *Am J Sports Med*. 2003;31:1020-1037.

6. Lecuire F. The long-term outcome of primary osteochondritis of the hip (Legg-Calve-Perthes Disease). *J Bone Joint Surg Br*. 2002;84(5):636-640.
7. Navarani AA, Tsiridis E, Tai CC, Thomas P. Acetabular labrum and its tears. *Br J Sports Med*. 2002;37:207-211.
8. Noguchi Y, Miura H, Tagasugi S, Iwamoto Y. Cartilage and labrum degeneration in the dysplastic hip generally originates in the anterosuperior weight bearing area: an arthroscopic observation. *Arthroscopy*. 1999;15(5):496-506.
9. Weinstein S. Bristol-Myers Squibb/Zimmer award for distinguished achievement in orthopaedic research. Long-term follow-up of pediatric orthopaedic conditions. Natural history and outcomes of treatment. *J Bone Joint Surg Am*. 2000;82-A(7):980-990.
10. McCarthy JC, Noble PC, Schuck MR, Wright J, Lee J. The watershed labral lesion: its relationship to early arthritis of the hip. *J Arthroplasty*. 2001; 16(8Suppl 1):81-87.
11. Wood JB, Klassen RA, Peterson HA. Osteochondritis Desiccans of the femoral head in children and adolescents: A report of 17 cases. *J Pediatric Orthop*. 1995;15(3):313-316.
12. Yrjonen T. Prognosis in Perthes disease after noncontainment treatment. 106 hips followed for 28-47 years. *Acta Orthop Scand*. 1992; 63(5):523-526.
13. American Physical Therapy Association. Guide to physical therapist practice. 2nd ed. *Phys Ther*. 2001; S179-S213, S34-S40.
14. Harris WH. Traumatic arthritis of the hip after dislocation and acetabular fracture treatment by mold arthroplasty. *J Bone Joint Surg Am*. 1967; 51(4):737-755.
15. Brotherton BJ, McKibbin B. Perthes Disease treated by prolonged recumbency and femoral head containment: A long-term appraisal. *J Bone Joint Surg Br*. 1977;59(1):8-14.
16. McAndrew MP, Weinstein SL. A long-term follow-up of Legg-Calve-Perthes Disease. *J Bone Joint Surg Am*. 1984;66(6):860-869.
17. Clarke NM, Harrison MH. Painful sequelae of coxa plana. *J Bone Joint Surg Am*. 1983;65(1):13-18.

18. Farsetti P, Tudisco C, Caterini R, Potenza V, Ippolito E. The Herring lateral pillar classification for prognosis in Perthes Disease: Late results in 49 patients treated conservatively. *J Bone Joint Surg Br.* 1995;77(5):739-742.
19. Ippolito E, Tudisco C, Farsetti P. Long-term prognosis of Legg-Calve-Perthes disease developing during adolescence. *J Pediatr Orthop.* 1985;5(6):652-656.
20. Yrjonen T, Poussa M, Hoikka V, Osteman K. Poor prognosis in atypical Perthes disease. Radiographic analysis of 19 hips after 35 years. *Acta Orthop Scand.* 1992;63(4):399-402.
21. Dorrell J, Casterall A. The torn acetabular labrum. *J Bone Joint Surg Br.* 1986;68(3):400-403.
22. Ikeda T, Awaya G, Suzuki S, Okada Y, Tada H. Torn acetabular labrum in young patients. Arthroscopic diagnosis and management. *J Bone Joint Surg Br.* 1988;70(1):13-16.
23. Nishi T, Nakanishi K, Sugsano N, Naito H, Tamura S, Ochi T. Acetabular labral tears: contrast-enhanced MR imaging under continuous leg traction. *Skeletal Radiol.* 1996;25(4):349-356.
24. Petersilge CA. MR arthrography for evaluation of the acetabular labrum. *Skeletal Radiol.* 2001;30(8):423-430. Review.
25. Petersilge CA, Haque MA, Petersilge WJ, Lewin JS, Lieberman JM, Buly RL. Acetabular labrum tears: evaluation with MR arthrography. *Radiology.* 1996;200(1):231-235.
26. McCarthy JC, Lee J. The role of hip arthroscopy: useful adjunct or devil's tool? *Orthopaedics.* 2002;25(9):947-948.
27. Erb R. Current concepts in imaging the adult hip. *Clin Sports Med.* 2001;20(4):661-690.
28. Mason JB. Acetabular tears in the athlete. *Clin Sports Med.* 2001;20(4):779-790.
29. Seldes RM, Tan V, Hunt J, Katz M, Winiarski R, Fitzgerald RH Jr. Anatomy, histological features, and vascularity of the adult acetabular labrum. *Clin Orthop.* 2001;382:232-240.
30. Bryd JW. *Operative Hip Arthroscopy.* New York, NY: Thieme Medical Publishers, Inc.; 1998.

Mark Beissel is the Clinical Director of Physical Therapy at Orthopaedic Therapy, Inc. in Jackson, MI.

Why guess ... when there's a better way?

Functional Capacity Evaluation ■ Job Demand Analysis ■ Post Offer Screening

Easy to Trust. Our patented scoring system, backed by 5 years of university-based research, takes the guesswork out of scoring and withstands legal challenges.

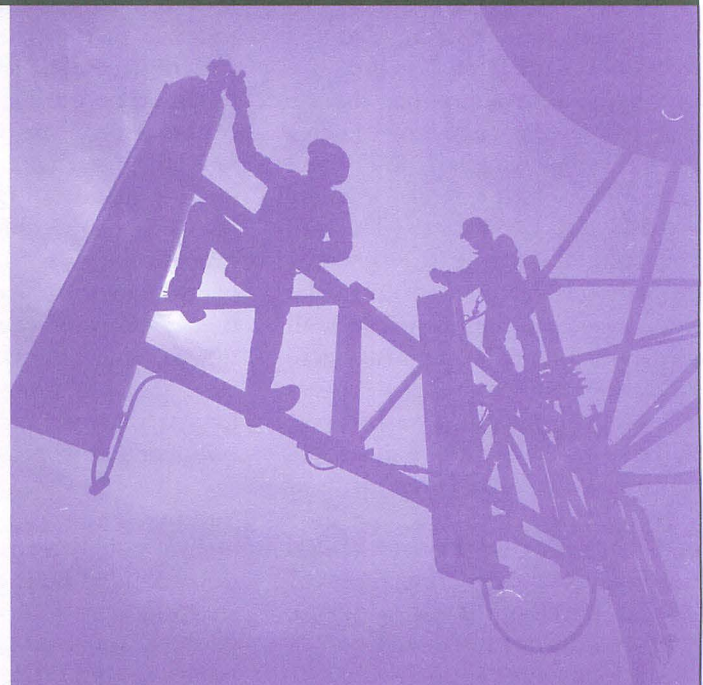
Easy to Use. Our software scores the evaluation and writes the report, making reporting easy and quick.

Easy to Afford. You can purchase our system through a variety of options and our referral network sends business your way.

Systems that give you the confidence you need to grow your industrial practice.

ErgoScience™

The Work Performance Experts™



15 Office Park Circle, Suite 214 ■ Birmingham, AL 35223 ■ (205)879-6447 ■ Toll free (866)779-6447 ■ Fax (205)879-6397

Visit us on the web at www.ergoscience.com ■ Or E-mail us at info@ergoscience.com

Validity of the Duffy-Rath Questionnaire

Jeffrey Ventre MS, PT; Ronald J. Schenk PT, PhD, OCS

INTRODUCTION

Today's health care marketplace requires that physical therapists use reliable and valid functional outcome measures in addition to impairment-based measures. Because studies have shown that 80% of the population experiences some form of back pain during their lifetime¹ and that these individuals are often treated in outpatient physical therapy, the use of functional questionnaires may make the establishment of rehabilitation goals more relevant. The purpose of this study was to determine if the Duffy-Rath Questionnaire (DRQ) is a valid tool in assessing patient-specific pain and function in subjects with cervical and/or lumbar dysfunction.

Physical therapists are becoming increasingly familiar with the use of outcome measures for patients with low back pain syndromes. Although Health Related Quality of Life (HRQL) measures do not replace tests for pathology, impairment, and pain in classification, diagnosis, and intervention selection, familiarity with outcome measures for the patient with low back pain is indispensable for physical therapists practicing in outpatient settings.² Despite the fact that functional questionnaires are being used to a greater extent with lumbar conditions, there is less evidence supporting the use of functional status measures on patients with cervical spine disorders. Riddle and Stratford found that the Neck Disability Index (NDI) and the Medical Outcomes Study 36-item Short-Form Health Survey (SF-36) had considerable overlap in the measured constructs and the use of both measures was probably not necessary.³ The authors stated that the NDI appears to be useful for measuring aspects of functional status measured by the physical and mental/emotional components of the SF-36.³

The Duffy-Rath Questionnaire (DRQ) is a functional outcome measure developed by 2 physical therapists, Wayne Rath and Jean Duffy Rath, to address the need for a functional tool that could be used for patients experiencing lumbar and/or lumbar conditions. The questionnaire consists of 2 pages addressing pain

“
... familiarity with
outcome measures
for the patient
with low back pain
is indispensable
for physical therapists
practicing in
outpatient settings.
”

and function. Included on the first page is a human diagram on which the patient draws to indicate the location and type of pain they are experiencing on that particular day. Also included are questions addressing details about the symptoms present in the neck/arm and/or lower back/leg areas. These questions are scaled from 0 to 10 with 0 indicating no pain and 10 indicating the worst pain imaginable. There are a total of 12 questions in this section. The second page includes 10 questions addressing the function of the patient. This allows the patient to rate the level of disability they encounter during functional tasks (Appendix A). The purpose of this study was to determine if the Duffy-Rath Questionnaire (DRQ) is a valid tool in assessing patient-specific pain and function in subjects with cervical and/or lumbar dysfunction. A secondary purpose of this investigation was to determine if one questionnaire, the DRQ, could be a valid assessment of function in cervical and lumbar patients, and in instances when both conditions present simultaneously.

Validity

The validity assessed in this investigation included both concurrent and construct validity. Concurrent validity compares 2 tools administered at similar points in time. The tool that was compared to the DRQ that has already been proven valid and reliable was the Visual Analog Scale (VAS). Concurrent validity

was assessed by comparing the measured outcomes of the DRQ with the VAS, at the initial evaluation and at discharge. Construct validity assesses the relationship between the 2 tools that measure the same or similar factors. In this study, the pain section of the DRQ was compared to the VAS. In addition, the DRQ was also compared to an outcome measure developed by Rath.⁴

The VAS is a measurement device used to describe a patient's perceived pain intensity. It is comprised of a 10-centimeter line that is labeled at one end with 'no pain' and the other end with 'worst pain imaginable.' The patients are asked to indicate on the line the amount of pain they are experiencing at the present time. This one-dimensional scale measures subjective pain and is used most often in outpatient clinics and treatment-outcome research.⁵

Schenk & Eppolito⁶ found the DRQ to be valid when compared to the Neck Disability Index (NDI). This study involved 63 subjects who presented with cervical pain and were treated at several outpatient physical therapy clinics. A Pearson correlation of $R = 0.83$ was found between the DRQ and the NDI.

Rath examined the relationship of the DRQ and an outcome measure, which was a composite of quantity of pain relief, VAS scores, improvements in range of motion and function, and the results of the mechanical examination, which included the testing of active and repeated movements. When tested for statistical significance ($P < .05$), Rath found a moderate-strong relationship between the measures.⁴

MATERIALS AND METHODS

The population consisted of 1850 subjects who were experiencing cervical and lumbar spine pain and who were referred by a physician for physical therapy treatment. The data were collected at an outpatient HMO physical therapy clinic in the western New York area. The actual sample was comprised of 1476 subjects. Three hundred seventy-four subjects were eliminated from the analysis secondary to missing data.

Data Collection Methods

The data collection began at the time which the patient was referred by a physician to physical therapy for cervical and/or lumbar pain. At the time of the initial visit, the patients were asked to complete the DRQ and VAS. The physical therapist's ability to determine appropriate, patient specific goals was assisted by the information that the patient provided in the function section of the DRQ. Patients in this study were treated with the McKenzie approach. Although the specific intervention may have been varied based on patients' signs and symptoms, the McKenzie method involved treatment based on classification and responses to repeated movements and was applied to all subjects in the study. At the time of the patient's final physical therapy visit, the patient again completed the DRQ and VAS forms. The average number of visits for the subjects was 7.5. A total disability score was derived from adding the 6 pain descriptive questions on the DRQ, based on information the patient circled. The total disability score was then entered into a computer database of scores. The data were analyzed by comparing the initial and final visit scores.

Human Rights Protection

The patients, who were members of an HMO, were aware that their insurer and health insurance policy allowed for access to patient information for possible use in outcomes research. Before data collection began, the research was approved by the Institutional Review Board at D'Youville College. The data were recorded in a manner such that subjects could not be identified by name.

RESULTS

Treatment of Data

The data were analyzed to estimate the correlation and clinical relevance of the DRQ compared to the VAS. This was done using a Pearson product moment correlation coefficient (PPMCC) set at a significance level of $P < 0.05$.

Tools

This study consisted of 2 functional measurement tools, the VAS and DRQ. The DRQ is a patient questionnaire which was used to assess the patients' perceived level of pain and function. The DRQ is separated into 2 sections, pain and function (Appendix A). The VAS was

used to assess the patients' perceived level of pain. The VAS is a 10-centimeter line representing pain on a continuum of absence of pain to the worst pain possible (Appendix B). The raw scores were then expressed as a percentage. Patients in the study also were classified according to the Quebec Task Force (QTF) classification system which is based on the location and severity of symptoms, radiological findings, and the presence of neurological signs.

Concurrent Validity

Concurrent validity of the DRQ was assessed using 4 different calculations. First, mean change in the function section of the DRQ ($O = 13.98$) was compared to mean change in the VAS ($x = 25.49$). A PPMCC was calculated to estimate correlation ($R = .44, P < .0001$) (Table 2). Secondly, validity was assessed by comparing mean change in the pain section of the DRQ ($O = 21.33$) compared to the mean change in the VAS ($x = 25.49$). A PPMCC was calculated ($R = .59, P < .0001$) (Table 2). Concurrent validity was assessed also by examining the mean scores of the DRQ at initial evaluation ($O = 37.51$) compared to the mean scores of the VAS at initial evaluation ($x = 48.09$). A PPMCC was calculated to determine cor-

relation ($R = .60, P < .0001$) (Table 2). A fourth method of determining validity was assessed by a comparison of the mean DRQ at discharge ($x = 19.92$) to the mean of the VAS at discharge ($x = 22.60$). A PPMCC was calculated to estimate a correlation coefficient ($R = .76, P < .0001$) (Table 2).

Construct Validity

To assess construct validity, the entire DRQ at discharge ($O = 19.96$) was compared to the outcome scores. A PPMCC was used to estimate correlation ($R = .67, P < .0001$) (Table 2). Finally, the mean of the pain section of the DRQ at initial evaluation ($O = 40.51$) was compared to the mean VAS score at initial evaluation ($x = 48.09$). A PPMCC was calculated to determine the correlation between the two ($R = .55, P < .0001$) (Table 3).

DISCUSSION

The validity of the DRQ was assessed using comparison of the VAS and outcomes to the DRQ. A PPMCC was used to calculate the correlation between the mean values of the 2 tools used in the study. The statistical significance of the correlation was established by P values.

The purpose of this study was to examine the validity of the DRQ. The DRQ and VAS were completed at initial evaluation and discharge by 1476 patients receiving physical therapy. Patients were also classified by the physical therapists according to the QTF classification system at initial evaluation. The relationships between VAS and DRQ, and change in the function section of the DRQ were examined. The PPMCC corre-

Table 1. Distribution of Ages in Sample

Age groups	n	%
under 19	52	3.5
40-	512	34.7
65-	699	47.4
over 65	213	14.4
Total	1476	100

Table 2. Content Validity of the Duffy-Rath Questionnaire (DRQ)

	\bar{X}	s	R	P value
CH DRQ fun	13.98	21.92	.4357	< .0001
CH VAS	25.49	27.55	.5939	< .0001
CH DRQ pain	21.33	20.78	.5998	< .0001
DRQI	37.57	18.81	.7588	< .0001
VASI	48.09	27.64	.6743	< .0001
VAS d/c	22.60	24.62		
DRQ d/c	19.92	19.50		
Outcome scores	—	—		

Note: CH DRQ fun = change in function section of the Duffy-Rath Questionnaire, CH VAS = change in Visual Analog Scale, CH DRQ pain = change in pain section of the Duffy-Rath Questionnaire, DRQI = Duffy-Rath Questionnaire at initial evaluation, VASI = Visual Analog Scale at initial evaluation, DRQ d/c = Duffy-Rath Questionnaire at discharge, VAS d/c = Visual Analog Scale at discharge.

Table 3. Construct Validity of the Duffy-Rath Questionnaire (DRQ)

	\bar{X}	s	R	P value
VASI	48.09	27.64	.5535	< .0001
Pain I	40.51	22.45		

Note: VASI = Visual Analog Scale at initial evaluation, Pain I = Pain section of the Duffy-Rath Questionnaire at initial evaluation.

lations were performed to assess concurrent and construct validity of the DRQ.

No gold standard exists to assess patients' spinal pain and function.¹ Due to the subjective manner of these constructs, comparison of these instruments to one another is the accepted methodology to assess validity. The validity of the VAS has been examined and compared to other pain questionnaires and diagnostic tools. In a study by Bolton and Wilkinson,⁷ the VAS was compared to the numerical rating scale and verbal rating scale. The VAS demonstrated a higher correlation coefficient ($R = 0.55$) than the other 2 scales. In a study by Persson, Carlsson, and Carlsson,⁸ the VAS was compared to the Sickness Impact Profile (SIP) and the two were found to be significantly correlated.

Various functional outcome tools have been shown to be valid when compared to the VAS. The Oswestry Questionnaire is a patient reported pain questionnaire, which is specific to the lumbar spine region. Test-retest reliability of the Oswestry has been found to be between $R = .72$ and $R = .99$ using a PPMCC.¹ A study by Triano et al⁵ found the Oswestry to have excellent test-retest reliability using a PPMCC ($R = .99$). The Oswestry was compared to the VAS and was shown to be valid ($R = .62$).⁵ The Neck Disability Index (NDI) was developed from the Oswestry as a functional outcome questionnaire for the cervical spine. The test-retest reliability was established by Vernon and Mior⁹ through the use of a PPMCC ($R = .89$). In the Vernon and Mior study,⁹ the NDI was found to be valid by comparison to the VAS ($R = .60$).

Fritz and Irrgang¹⁰ examined the validity of a global rating of change as a reflection of meaningful change in patient status. The authors compared the measurement properties of a modified Oswestry Low Back Pain Disability Questionnaire (OSW) and the Quebec Back Pain Disability Scale (QUE). Fritz and Irrgang concluded that the modified OSW demonstrated superior measurement properties

compared with the QUE.¹⁰ The DRQ assesses similar functional tasks as do the Oswestry and NDI, but is particularly useful in that it may be applied to cervical as well as lumbar spine patients.

Activities that require mobility of the trunk are often limited in patients with back problems. In a study conducted by Strand et al,¹¹ 5 tests (Sock Test, Pick-up Test, Roll-up Test, Fingertip-to-Floor Test, and Lift Test) all requiring sagittal-plane mobility, were performed; and the test scores were combined by the authors in a scale called the Back Performance Scale (BPS) to obtain a performance measure of mobility-related activities. The authors found that internal consistency of the BPS was high and discriminative ability of the instrument and responsiveness to change was demonstrated. The authors concluded that the BPS is a practical measure of performance, is quick and easy to perform, and does not require costly equipment. The DRQ incorporates a pain scale and a patient perceived rating of function, but does not include impairment measures. As evidenced by a search of the literature, the relationship between impairments and function has not been well established.

Sullivan and associates¹² examined the relationship between impairment of lumbar spine flexion and disability. Eighty-one patients with low back pain completed the Roland-Morris Back Pain Questionnaire (RMQ) and the physical therapists assessed lumbar spine flexion. Correlations between the lumbar spine flexion measure and disability were low, suggesting that lumbar flexion measures should not be used as treatment goals.¹² Using pain measures to establish goals is another question examined in physical therapy research.

Zogaria and Bohannon¹³ attempted to determine the value of the McGill Pain Questionnaire (MPQ) as a predictor of 2 outcomes in patients receiving outpatient physical therapy services. The outcomes of interest were the patients' final Oswestry Low-Back Pain Questionnaire

(OLBPQ) scores and the change between the patients' initial and final OLBPQ scores. Initial QLBPQ scores and compensation status predicted outcomes, but results of the study did not support the use of the MPQ as a predictor of functional outcome in outpatients with low back pain.

Resnik and Kobrzykowski² provided an overview of generic, disease-specific, and patient-specific tools with commentary on the use of the SF-36, SF-12, Oswestry, Roland-Morris Questionnaire, and patient-specific tools. The authors concluded that these outcome measures can serve as reliable, valid, and responsive measures of intervention outcome.²

CONCLUSION

For a functional status questionnaire to be determined useful, it must be valid. According to Sims and Arnell,¹⁴ validity is defined as the extent to which an instrument measures what it is intended to measure. In this study, the concurrent and construct validity was determined for the DRQ.

In this study, concurrent validity was assessed by comparison of the DRQ to a valid questionnaire, the VAS. A PPM correlation was performed to compare the DRQ at initial evaluation to the VAS at initial evaluation ($R = .60$, $P < .0001$). A comparison between the DRQ at discharge and the VAS at discharge was also calculated. The PPM correlation was estimated to be $.76$ ($P < .0001$). The content validity of the DRQ at discharge was also estimated by comparison to outcome scores. A PPM was estimated to be $.67$ ($P < .0001$). The mean change in the VAS as compared to the mean change in the function section of the DRQ demonstrated a fair amount of correlation ($R = .44$, $P < .0001$).¹⁵ The mean change in the VAS as compared to the mean change in the DRQ pain section demonstrated a moderate to good degree of correlation ($R = .59$, $P < .0001$). These results determined fair validity of the DRQ.

Validation of the construct of pain was determined in this study by comparison of the VAS at initial evaluation and the pain section of the DRQ at initial evaluation ($R = .55$, $P < .0001$). The mean change in the VAS was compared to the mean change in the function section of the DRQ ($R = .44$, $P < .0001$). The mean change in the VAS was compared to the mean change in the DRQ pain ($R = .60$, P

< .0001). These results indicated fair to good validity of the DRQ.

Implications for Practice

Results of this study show that the DRQ is a valid functional status questionnaire for assessing functional disabilities. This questionnaire can be used in clinical practice for conditions involving lumbar and cervical spine disorders. The DRQ may be clinically useful because it may be used to assess patients' perceived levels of function for lumbar and cervical spine disorders.

Establishment of the validity of this tool allows physical therapists to use the DRQ for gathering subjective information, establishing goals, and documenting outcomes relative to interventions. The DRQ can be used to determine functional limitation patterns for patients with specific diagnosis, which may assist in predicting length of stay for patients. Physical therapists can also use this tool to determine treatment efficacy.

Recommendations for Future Research

Further research on the DRQ could be performed to determine its test-retest reliability as compared to other functional outcome measures. Estimating reliability at the time of data analysis proved to be difficult due to the lack of current reliable and valid tools in assessing function in people with cervical and lumbar dysfunction. Further testing could be performed to determine the validity of the DRQ with other functional status questionnaires such as the Oswestry and NDI to further validate new or invalidated existing tools. Finally, the DRQ can also be used in other outcome studies to establish treatment effi-

cacy of combined methods or further validation of the McKenzie approach.

ACKNOWLEDGEMENT

The authors wish to acknowledge the physical therapists at Health Care Plan, Buffalo, NY for their assistance in data collection for this study.

REFERENCES

1. Beurskens A, de Vet H, Koke A, van der Heijden G, Knipschild P. Measuring the functional status of patients with low back pain. *Spine*. 1995;20(9):1017-1028.
2. Resnik L, Dobzykowski E. Guide to outcomes measurement for patients with low back pain syndromes. *J Orthop Sports Phys Ther*. 2003;33(6):307-316.
3. Riddle DL, Stratford PW. Use of generic versus region-specific functional status measures on patients with cervical spine disorders. *Phys Ther*. 1998;78(9):951-963.
4. Rath W. Manual therapy: Art vs. science? *PT Mag*. 1993;1(4):50-53, 73-74.
5. Triano J, McGregor M, Cramer G., Emde D. A comparison of outcome measures for use with back pain patients: Results of a feasibility study. *J Manip Physiol Therapeutics*. 1993;16(2):67-72.
6. Schenk RJ, Eppolito B. Efficiency of treatment and functional outcomes of cervical pain patients treated with McKenzie approach compared to those treated with a combined approach. *McKenzie J*. 1997;7(2):22-29.
7. Bolton J, Wilkinson R. Responsiveness of pain scales: A comparison of three pain intensity measures in chiropractic patients. *J Manip Physiol Therapeutics*. 1988;21(1):1-5.

8. Persson, L, Carlsson C, Carlsson J. Long-lasting cervical radicular pain managed with surgery, physiotherapy, or a cervical collar: A prospective randomized study. *Spine* 1997;22(7):751-758.
9. Vernon H, Mior S. The neck disability index: A study of reliability and validity. *J Manipul Physiol Therapeutics*. 1991;14(7):409-415.
10. Fritz, JM, Irrgang JJ. A comparison of a modified Oswestry low back pain disability questionnaire and the Quebec back pain disability scale. *Phys Ther*. 2002;81(2):776-788.
11. Strand LI, Moe-Nilssen R, Ljunggren AE. Back performance scale for the assessment of mobility-related activities in people with back pain. *Phys Ther*. 2002;82(12):1213-1223.
12. Sullivan MS, Shoaf LD, Riddle DL. The relationship of lumbar flexion to disability in patients with low back pain. *Phys Ther*. 2000;80(3):240-250.
13. Zogaria JR, Bohannon RW. McGill pain questionnaire scores do not predict outcomes of outpatient therapy for patients with low back pain. *J Manual Manip Ther*. 2003;11(2):110-116.
14. Sims J, Arnell P. Measurement validity in physical therapy research. *Phys Ther*. 1993;73(2):102-115.
15. Portney L, Watkins, M. *Foundations of Clinical Research Applications to Practice*. Stamford, Conn: Appleton & Lange; 1993.

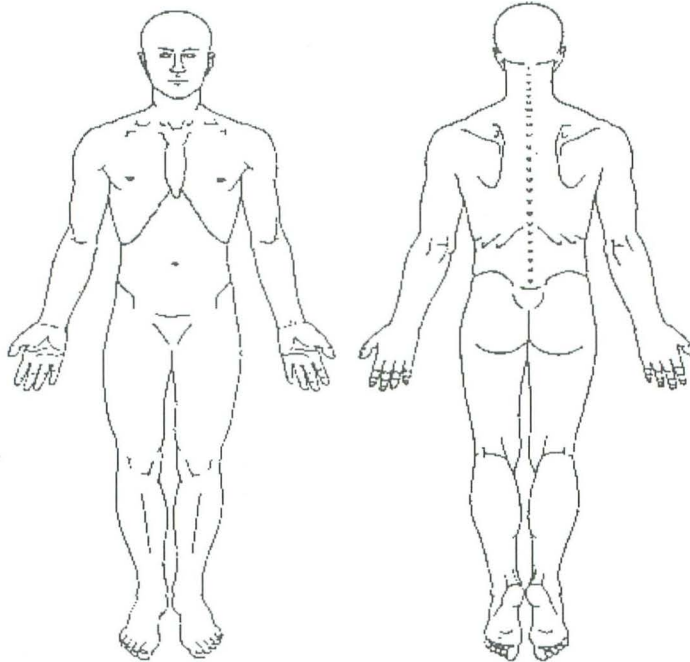
Jeffrey Ventre is at the Department of Physical Therapy at D'Youville College in Buffalo, NY; Ronald Schenk is an Associate Professor of Physical Therapy, Daemen College in Amherst, NY.

Duffy-Rath Questionnaire ©

Name: _____ Date: _____ Visit #: _____

The following information lets us know how you are doing **TODAY!** Please complete this questionnaire at each visit. We understand that by limiting your responses to how you are today, we may be catching you on a particularly good or bad day (**PLEASE COMPLETE BOTH SIDES OF QUESTIONNAIRE**).

Draw on the figure below where you feel pain TODAY.
Use **X** marks to show where you feel **numbness, tingling or pins and needles TODAY**.



Circle the number that <u>NECK/ARM</u>	describes your symptoms <u>TODAY</u> . <u>LOWER BACK/LEG</u>
<p>1. How bad is your neck / upper back pain? 0---1---2---3---4---5---6---7---8---9---10 No Pain Worst Possible</p> <p>2. How frequent is your neck / upper back pain? 0---1---2---3---4---5---6---7---8---9---10 Never There Half the Time Always There</p> <p>3. How bad is your arm pain? 0---1---2---3---4---5---6---7---8---9---10 No Pain Worst Possible</p> <p>4. How frequent is your arm pain? 0---1---2---3---4---5---6---7---8---9---10 Never There Half the Time Always There</p> <p>5. How bad is your numbness/tingling? 0---1---2---3---4---5---6---7---8---9---10 No Pain Worst Possible</p> <p>6. How frequent is your numbness/tingling? 0---1---2---3---4---5---6---7---8---9---10 Never There Half the Time Always There</p>	<p>1. How bad is your back pain? 0---1---2---3---4---5---6---7---8---9---10 No Pain Worst Possible</p> <p>2. How frequent is your back pain? 0---1---2---3---4---5---6---7---8---9---10 Never There Half the Time Always There</p> <p>3. How bad is your leg pain? 0---1---2---3---4---5---6---7---8---9---10 No Pain Worst Possible</p> <p>4. How frequent is your leg pain? 0---1---2---3---4---5---6---7---8---9---10 Never There Half the Time Always There</p> <p>5. How bad is your numbness/tingling? 0---1---2---3---4---5---6---7---8---9---10 No Pain Worst Possible</p> <p>6. How frequent is your numbness/tingling? 0---1---2---3---4---5---6---7---8---9---10 Never There Half the Time Always There</p>

Functional Status Questionnaire

Indicate how you are doing by **CIRCLING** the number that best describes your ability **TODAY**. Please complete this questionnaire at each visit. We understand that by limiting your responses to how you are doing today, we may be catching you on a particularly good or bad day.

1. Rate Your Ability to Sit:

completely 0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10 completely
able to do Half able unable to do

2. Rate Your Ability to Stand:

completely 0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10 completely
able to do Half able unable to do

3. Rate Your Ability to Walk:

completely 0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10 completely
able to do Half able unable to do

4. Rate Your Ability to Bend Forwards:

completely 0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10 completely
able to do Half able unable to do

5. Rate Your Ability to Lift and Carry:

completely 0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10 completely
able to do Half able unable to do

6. Rate Your Ability to Participate in Your Normal Sport or Recreational Activities :

completely 0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10 completely
able to do Half able unable to do

7. Rate Your Ability to Work:

completely 0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10 completely
able to do Half able unable to do

8. Rate Your Ability to have Sexual Relations:

completely 0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10 completely
able to do Half able unable to do

9. Rate Your Ability to Sleep:

completely 0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10 completely
able to do Half able unable to do

10. Rate Your Overall Ability to Perform Your Normal Daily Activities:

completely 0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10 completely
able to do Half able unable to do

Visual Analog Scale (VAS)

0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10
No pain Worst pain imaginable

Annual Fundraiser

The 13th Annual Fundraiser for APTA's Minority Scholarship Fund
Diversity 2000 & Beyond: Commitment for the 21st Century
is scheduled for Saturday, October 1, 2005 at the Ritz-Carlton, Huntington Hotel & Spa, Pasadena, CA.

The Fundraiser is being co-hosted by the Academic Administrators and Clinical Education Special Interest Groups of the Section for Education. Single ticket prices for the dinner/dance are \$100. Contributions of any amount are welcome. You can also participate by donating items for the Silent Auction.

Ad space in the souvenir book may be purchased at \$500 for a full page, \$250 for a 1/2 page, and \$100 for a business card. For further information, please contact APTA's Department of Minority/International Affairs at 1-800-999-2782, ext 3144.



AAOMPT 2005 - CALL FOR ABSTRACTS

The 11th Annual Conference of the American Academy of Orthopaedic Manual Physical Therapists will be held **October 14-16 in Salt Lake City, UT**. Interested individuals are invited to submit abstracts for presentation in slide or poster format. The AAOMPT research committee chairman must receive the abstract by **June 1, 2005**. Abstracts received after this date will be returned. You will be notified of the acceptance/rejection of your abstract in July. If you have any questions call the research committee chairman at (828)-227-2126 or email at: twatson@wcu.edu. For additional organization information, check out our website, www.aaompt.org.

CONTENT. The Academy is soliciting all avenues of research inquiry from case-report and case-series up to clinical trials. The Academy is particularly interested in research evaluating intervention strategies using randomized-controlled clinical trials. The abstract should include 1) Purpose; 2) Subjects; 3) Method; 4) Analyses; 5) Results; 6) Conclusions; 7) Clinical Relevance.

PUBLICATION. The accepted abstracts will be published in *The Journal of Manual & Manipulative Therapy*, which has readership in over 40 countries.

SUBMISSION FORMAT. The format for the submitted abstracts is as follows:

The abstract must be submitted by email in MS Word format to the research committee chairman (twatson@wcu.edu). The abstract should fit on one page with a one-inch margin all around. The text should be typed as one continuous paragraph. Type the title of the research in ALL CAPS at the top of the page followed by the authors' names. Immediately following the names, type the institution, city, and state where the research was done. Please include a current email address where you can be contacted.

PRESENTATION. The presentation of the accepted research will be in either a slide or poster session. The slide session will be limited to 10 minutes followed by a 5-minute discussion; this session will be primarily for research reports and randomized clinical trials. The poster session will include a viewing and question answer period and will be primarily for case report/series.

PRESENTATION AWARDS. The platform and poster presentations deemed of the highest quality of those presented at the annual conference will be awarded the AAOMPT Excellence in Research Award (platform), and the AAOMPT Outstanding Case Report (poster). The awards include free tuition for the AAOMPT conference the following year.

Todd Watson, DPT, OCS, FAAOMPT
Western Carolina University • Cullowhee, NC 28723 • twatson@wcu.edu



Albert TJ, Vaccaro AR. *Physical Examination of the Spine*. New York, NY:Thieme Inc.; 2005, 130 pp., illus.

The intent of *Physical Examination of the Spine* is to help medical students, physicians, and allied health professionals such as physical therapists and nurses understand and improve their spinal diagnostic capabilities through a well-executed and comprehensive physical examination. The authors are orthopaedic surgeons who specialize in spinal surgery.

This book is comprised of 4 chapters. The first chapter provides an overview of basic anatomy and neurology of the spine, as well as a description of sensory, muscle, and reflex testing and grading. Chapters 2 through 4 are devoted to the physical examination of the cervical, thoracic, and lumbar spines, respectively. A similar format is used for the chapters covering physical examination of the cervical, thoracic, and lumbar spines, in that each chapter covers inspection, palpation, active and passive range of motion assessment, and motor, sensory and reflex testing. Additionally, special tests for each anatomic region of the spine are included in each chapter. For example, in the cervical spine chapter, 11 different special tests are described. This book does not discuss the treatment of different spinal disorders.

This book is well organized and the descriptions of the different physical examination procedures are thorough, succinct, and easy to understand. The sections describing motor, sensory, and reflex testing for the cervical and lumbar spines were particularly comprehensive. High quality line drawings are consistently used throughout to supplement the text.

There are some drawbacks to this book. The most significant, in my opinion, is that the reliability and validity for any of the physical examination procedures included in this book were not discussed. Additionally, no rationale was given as to why certain special tests were selected for inclusion. The inclusion of reference lists would also have been helpful for the chapters covering physical examination of the cervical, thoracic, and lumbar spines.

Despite these limitations, and the fact that the information in it is covered in several other physical therapy textbooks, this text still has merit. Specifically, this book could serve as a useful clinical reference for physical therapists, especially for those less experienced in evaluating patients with spinal disorders. This book would also serve as a useful reference text for a hospital or university library, where it can be accessed by several different disciplines.

Michael D. Ross, PT, DHS, OCS



Buckup K. *Clinical Tests for the Musculoskeletal System: Examinations, Signs, Phenomena*. New York, NY: Thieme; 2004, 272 pp., illus.

With this handy reference book, the author has met his stated purpose of providing a practical guide to help the clinician diagnose musculoskeletal disorders and injuries. Despite its portable size, fitting easily into a lab coat pocket, the text is surprisingly comprehensive, describing some 285 relevant special tests.

Most of the book covers orthopaedic tests for the spine, upper and lower extremities, from the more common (eg, pivot shift, Neer impingement) to the less recognizable (Losee, Laguerre tests). Additional tests for posture, venous and arterial occlusive disease (including thoracic outlet syndrome), because of their usefulness in musculoskeletal differential diagnosis, are listed in separate sections. Each test entry consists of concise drawings, a brief but thorough description of the procedure, and an assessment, including the purpose of the test, interpretation, and what constitutes a positive sign.

In addition to content, another strength of the book is its regionalized format. Headings at the top of each page allow the clinician to locate particular tests quickly. A thorough index is also helpful.

One minor weakness of the book is its lack of bibliographic references for those interested in follow up or further clarification. This might limit the book's value

as a teaching tool in the classroom for the entry-level student. But the orthopaedic physical therapist and the student in clinical rotation would benefit greatly from this excellent clinical guidebook.

Michael J. Wooden, MS, PT, OCS, MTC



Reider B. *The Orthopedic Physical Examination*. 2nd ed. Philadelphia, Pa: Elsevier Saunders; 2005, 383 pp., illus.

This text was edited by an orthopaedic surgeon with the intended audience being clinicians from all backgrounds. There are various contributing authors who are also orthopaedic surgeons and assisted in the writing of the chapters relating to their area of specialty. There are 9 chapters in this text. The first chapter is an overview and defines anatomical terms, directions of movements, etc. The author describes the components of an orthopaedic evaluation as inspection, palpation, and manipulation. Manipulation refers to muscle testing, sensation testing, reflex testing, stability testing, and special testing. The use of manipulation in this manner is a bit confusing as it is more commonly used to describe a treatment intervention.

Chapters 2 through 9 addresses the specific orthopaedic exam features divided by regions of the body. Each of these chapters includes complete test descriptions and accompanying photos. Abnormal examination findings are demonstrated throughout the text. Each of these chapters is arranged in the same pattern, which makes it easy for the reader to find the desired information. The physical examination testing is very comprehensive and well illustrated in each chapter.

Each chapter contains tables that match a possible diagnosis with a patient's complaints. For example, in the shoulder and upper arm chapter, there is a table pertaining to when the patient complains of the inability to actively raise the arm. The differential diagnosis and the physical examination findings are summarized. These tables are found

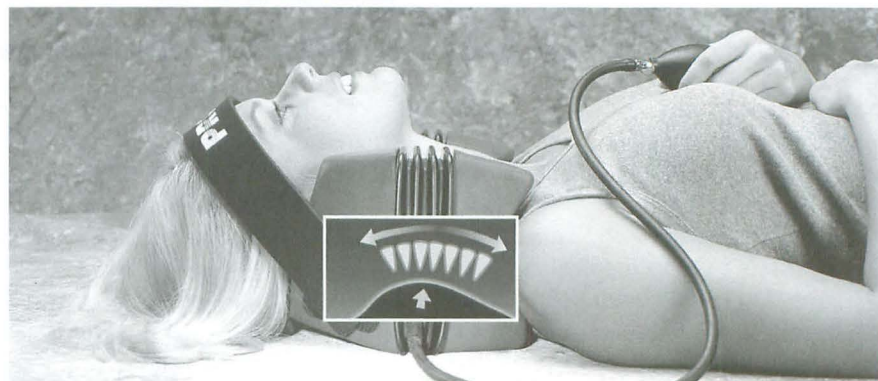
throughout this text. There are summaries of physical findings of common conditions at the end of each chapter, which allows for review. This would also be useful when the clinician needs to research either a differential diagnosis or a specific test during a patient evaluation. There are take home points at the end of each chapter that summarizes clinical tips for the examination. For example, in the knee chapter, the author stresses the importance of looking for the lack of full extension, as it is a serious functional problem.

One of the strengths of this text is the demonstration of palpation for specific nerves and pulses in each section. Sensory distributions are displayed clearly on human subjects. In the cervical and thoracic spine chapter, the upper limb tension tests are described along with photographs clearly. The specificity and sensitivity of certain tests are given such as the crossed straight leg-raising test for a compressed or irritated lumbar nerve root.

While there are many other texts that cover the topic of the orthopaedic physical examination, this text is a valuable addition to the literature, and would be useful to physical therapists of all levels of experience. The various photographs of abnormal findings and different pathologies such as found in the hand and wrist chapter are very valuable. The text is well written and would be useful in the clinic.

Jeff Yaver, PT

PRONEX® Pneumatic Cervical Traction for Positive Outcomes



**Maintains the natural curve and alignment of the neck - helps manage pain.
Comes complete with carrying case, head band and instruction manual.**



Unconditional 30-day
money back guarantee

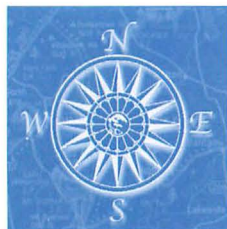
Pronex is an easy to use, comfortable at-home traction therapy device that requires no assembly. It creates an even distraction in the anterior and posterior cervical discs while supporting the cervical curve. Pronex does not aggravate the temporomandibular joint. It exerts force evenly and gently, provides up to 25 lbs of continuously adjustable traction and encourages a high rate of patient compliance. Available in 3 sizes. Pronex requires a physician's prescription for dispensing. Reimbursed by Workers' Compensation and most insurance carriers. For the dealer in your area, call 800/388-4828.



Glacier Cross®

P.O. Box 7818 Kalispell, MT 59904

www.glaciercross.com



Are You Headed In the Right Direction?

CONTINUING



PHYSICAL THERAPY
EDUCATION

2005 COURSES

- Orthopaedic Interventions for Pediatric Patients (January–June 2005)
- Post-operative Management of Orthopaedic Surgeries (April–September 2005)
- Strength and Conditioning (July–December 2005)

CURRENT COURSES AVAILABLE

- Marketing Techniques for Physical Therapists
(This is a 3-monograph course. Registration fees: \$75 Orthopaedic Section Members, \$150 APTA Members, \$200 Non-APTA Members, \$5 Shipping and handling) (15 contact hours)
- Clinical Applications for Orthopaedic Basic Science
- Medical Screening for the Physical Therapist
- Physical Therapy for the Cervical Spine and Temporomandibular Joint
- Evidence-based Practice for the Upper and Lower Quarter
- Including the Patient in Therapy: Psychological Considerations and PT Delivery (previously titled Including the Patient in Therapy: The Power of the Psyche)
- Effective Prevention and Management of Work-related Injuries
(This is a 3-monograph course. Registration fees: \$75 Orthopaedic Section Members, \$150 APTA Members, \$200 Non-APTA Members, \$5 Shipping and handling) (15 contact hours)
- Orthopaedic Interventions for Selected Disorders
- Prosthetics and Orthotics

REGISTER ONLINE:
www.orthopt.org

- Current Concepts of Orthopedic Physical Therapy
(This is a 12-monograph course. Registration fees: \$200 Orthopaedic Section Members, \$425 Non-Orthopaedic Section Members, \$15 Shipping and handling) (84 contact hours)
- Solutions to Shoulder Disorders
Course content is not intended for use by participants outside the scope of their license or regulation.

EDUCATIONAL CREDIT

Thirty contact hours will be awarded for completion of 6-monograph courses, 84 contact hours will be awarded for the 12-monograph course, and 15 contact hours awarded for 3-monograph courses. A certificate of course completion will be awarded to participants after successfully completing the final examination. Only the registrant named will obtain contact hours. No exceptions will be made. Registrants are responsible for applying to their State Licensure Board for CEUs.

REGISTRATION FEES FOR 6-MONOGRAPH COURSES

\$150 Orthopaedic Section Members \$250 APTA Members \$325 Non-APTA Members
\$10 shipping and handling for each course ordered
If notification of cancellation is received in writing prior to the course, the registration fee will be refunded less a 20% administrative fee. Absolutely no refunds will be given after receipt of course materials.

sEMG

is not just for knees and shoulders...



Pathway™

*Choose the company with the highest
commitment to quality products,
support and education.*

2005 Professional Development Courses in Rocabado Manual Techniques, Pelvic Muscle Dysfunctions and Geriatrics

Female Pelvic Floor Function, Dysfunction and Treatment – Level I

*Kathe Wallace, P.T., and
Hollis Herman, M.S., P.T., O.C.S.*

January 21, 22 & 23 • Miami, Florida
March 11, 12, & 13 • Portland, Oregon
October 21, 22 & 23 • Las Vegas, Nevada
December 1, 2 & 3 • Newark, New Jersey

Female Pelvic Floor Function, Dysfunction and Treatment – Level II

*Kathe Wallace, P.T., and
Hollis Herman, M.S., P.T., O.C.S.*

April 21, 22 & 23 • Honolulu, HI

Advanced Pelvic Floor Dysfunctions – Level III

Hollis Herman, M.S., P.T., O.C.S.

January 7, 8 & 9 • Akron, Ohio
May 6, 7, & 8 • Boston, Massachusetts

Pregnancy & Postpartum: Clinical Highlights

Hollis Herman, M.S., P.T., O.C.S.

June 4 & 5 • Baltimore, MD
July 30 & 31 • Portland, Maine
September 17 & 18 • Akron, Ohio

Pediatric Incontinence and Pelvic Floor Dysfunction

Dawn Sandalcidi, P.T., R.C.M.T.

May 14 & 15 • Chicago, Illinois

SI Evaluation & Manual Therapy Treatment: A Rocabado Approach with

Pelvic Floor/Transversus Stabilization

Dawn Sandalcidi, P.T., R.C.M.T.

March 19 & 20 • Boston, Massachusetts
April 16 & 17 • Philadelphia, Pennsylvania
August 27 & 28 • Minneapolis, MN
October 8 & 9 • Portland, Oregon
November 12 & 13 • Chicago, Illinois

Evaluation and Treatment of the Upper Cervical Spine: The Rocabado Approach

Marian Brame, MA, PT, RCMT

March 5 & 6 • Nashville, Tennessee
April 9 & 10 • Minneapolis, Minnesota
April 30 & May 1 • Chicago, Illinois
September 24 & 25 • Iowa City, Iowa
October 8 & 9 • Baltimore, Maryland
October 22 & 23 • Jacksonville, Florida

Evaluation and Treatment of Craniomandibular Disorders: The Rocabado Approach

Marian Brame, MA, PT, RCMT

March 12 & 13 • Seattle, Washington
November 5 & 6 • Chicago, Illinois

Alzheimer's Disease: Rehabilitation Considerations in the Examination, Evaluation & Interventions

Jennifer M. Bottomley, P.T., M.S., Ph.D.

March 11 & 12 • Minneapolis, Minnesota
November 4 & 5 • Columbus, Ohio

Geriatric Neurology:

Rehabilitation Treatment Considerations

Jennifer M. Bottomley, P.T., M.S., Ph.D.

April 29 & 30 • Boston, Massachusetts

Geriatric Rehabilitation: Principles & Practices in the Care of the Elderly in an Evolving Health Care Arena

Jennifer M. Bottomley, P.T., M.S., Ph.D.

January 28 & 29 • Chicago, Illinois
September 9 & 10 • Newark, New Jersey

Urological and Gynecological Pain Syndromes: The Musculoskeletal Connection

Erica Fletcher, P.T., M.T.C.

February 11, 12 & 13 • Newark, New Jersey
May 20, 21, & 22 • Cleveland, Ohio
July 22, 23 & 24 • Richmond, Virginia
October 14, 15 & 16 • Philadelphia, Pennsylvania

Beyond Kegels:

Bladder Health and the Pelvic Muscle Force Field

Beyond Kegels II:

Advanced Techniques and Special Populations

Janet A. Hulme, M.A., P.T.

February 4, 5 & 6 • Chicago, Illinois
April 29, 30 & May 1 • Minneapolis, Minnesota
August 26, 27 & 28 • Philadelphia, Pennsylvania
October 21, 22 & 23 • Boston, Massachusetts
November 4, 5 & 6 • New Orleans, Louisiana

Rotator Cuff of the Pelvis

Chronic Pelvic Pain and Low Back Pain

Janet A. Hulme, M.A., P.T.

March 4, 5 & 6 • Baltimore, Maryland
May 20, 21 & 22 • St. Louis, Missouri
July 8, 9 & 10 • Minneapolis, Minnesota
September 9, 10 & 11 • Chicago, Illinois

For more information on
our products or courses
call us at
1-800-442-2325
or visit our website at
www.theprogrp.com



The Prometheus Group™

One Washington St., Suite 303, Dover, NH 038201
800-442-2325 • Fax 1-603-749-0511
E-mail: info@theprogrp.com

2005 CSM Award Winners

Awards were presented at the 2005 Combined Sections Meeting in New Orleans.



Jonathan Sum
2005 Outstanding PT Student.

OUTSTANDING PHYSICAL THERAPY STUDENT AWARD

The purpose of this award is to identify a student physical therapist (first professional degree) with exceptional scholastic ability and potential for contributions to orthopaedic physical therapy. The eligible student shall excel in academic performance in both the professional and prerequisite phases of their educational program, and be involved in professional organizations and activities that provide potential growth and contributions to the profession and orthopaedic physical therapy.

Jonathan Sum received his baccalaureate degree from the University of Southern California. He will graduate in May 2005 from the Doctor of Physical Therapy (DPT) program at the University of Southern California. The mission of the University of Southern California's DPT program is to educate authoritative practitioners and future leaders in the profession of physical therapy. Mr. Sum has embraced this mission wholeheartedly through his pursuit of excellence in community service, rehabilitation science research, and patient care. Many know of his leadership style and contagious enthusiasm for professionalism and citizenship. Jonathan is equally effective when working with the less privileged members of the Los Angeles community (ie, those who are homeless and unable to work) as well as the most privileged (his own classmates). Jonathan has completed full-time internships at Rancho Los Amigos National Rehabilitation Center and at Hopi Indian Health

Services on the Hopi Native American reservation. When in the clinic, Jonathan has demonstrated superb communication, interaction, and education skills with patients and colleagues. His research included participation in a funded research project investigating the biomechanical and clinical characteristics of the lumbar spine under loaded and unloaded conditions in symptomatic and asymptomatic subjects. Jonathan Sum is truly an outstanding student, soon to become an insightful and well-educated practicing physical therapist with a tremendous potential to contribute to the Orthopaedic Section of the APTA.



Trish King receives the Excellence in Teaching Award from Tom McPoil, Awards Chair.

JAMES A. GOULD EXCELLENCE IN TEACHING ORTHOPAEDIC PHYSICAL THERAPY AWARD

This award is given to recognize and support excellence in instructing OPT principles and techniques through the acknowledgement of an individual with exemplary teaching skills. The instructor nominated for this award must devote the majority of his/her professional career to student education, serving as a mentor and role model with evidence of strong student rapport. The instructor's techniques must be intellectually challenging and promote necessary knowledge and skills.

Patricia M. King, PT, MA, MTC, is the 2005 recipient of the James A. Gould Excellence in Teaching of Orthopaedic Physical Therapy Award.

Ms. King's academic service began in 1983 at The University of Tennessee in

Memphis (UTM). Working as a clinical consultant to the College of Medicine, Department of Obstetrics and Gynecology in the Pelvic Pain Clinic, and to the College of Dentistry in the TMJ Clinic, Ms. King began her clinical and teaching career focused on areas that were not well understood, appreciated, or treated. As a clinical instructor, she was able to walk-the-walk by sharing her clinical expertise and wisdom with students and patients.

Ms. King taught in the orthopaedic curriculum at the University of St. Augustine for Health Sciences from 1992-1999. Ms. King and Ms. Catherine Patla developed a course on Educational Theory which was the starting point for the journey of many of our current leaders in orthopaedics. Currently Ms. King is teaching at Tennessee State University in Nashville. She is currently completing her doctorate work with a study of "Bio-Cultural Correlates of Chronic Pelvic Pain in Women."

Her teaching style is clearly "student-centered," and is a hallmark of a master teacher. Her mentorship of countless individuals over the course of her academic career has made an impact on this profession in the fields of women's health, pelvic pain, pain management, gender and pain, and orthopaedic management of the spine and the TMJ. Her ability to coax people to achieve more than they thought possible, whether it is writing a class paper suitable for publication, revising a research study until it is published, taking a position on a committee, or advancing one's degree, Ms. King is an inspirational teacher. She is one of those people who quietly and consistently gets things done, positively impacts numerous people, and moves on to other challenges.

PARIS DISTINGUISHED SERVICE AWARD

The purpose of this award is to acknowledge and honor a most outstanding Orthopaedic Section member whose contributions to the Section are of exceptional and enduring value.

The Orthopaedic Section's Paris Distinguished Service Award for 2005 is



**Paris Distinguished Serviced Award –
Lola Rosenbaum.**

being presented to **Lola Sicard Rosenbaum, PT, MHS, OCS**. Lola received her Bachelor of Science degree in Physical Therapy from the Medical College of Georgia in 1986. She completed a Master of Health Science degree at the University of Florida in 1998. In 1991 she was certified as an orthopaedic clinical specialist. From 1998 to 1999 she was an instructor at the Institute of Physical Therapy, University of St. Augustine in Florida with Dr. Stanley Paris.

Lola has served the Orthopaedic Section with distinction in varied capacities over many years. In these capacities she has influenced the course of many major decisions. From 2001-2004 she served as Vice President of the Section. During these same years she served as the Chair of the Awards Committee and as a member of the Orthopaedic Section's Home Study Course Advisory Panel. Lola was a major force in fostering the Home Study Course program. Lola has been very creative in generating new ideas for the Home Study Courses and refining proposed topics. Her active involvement in the HSCs has contributed to the long-term success of this program.



**Past Paris Award winners who
attended the 2005 ceremony.
(L to R: Rick Ritter, Stanley Paris,
Dorothy Santi, Lola Rosenbaum, Nancy
White, Carol Tichenor, & Joe Farrell)**

As Vice President (2001-2004), Lola demonstrated strong leadership and an ability to render detailed analyses of the Section's financial status. She was resourceful and always had novel ways to approach new challenges.

Lola also is a strong consensus builder. This attribute was evident as decisions were being made between the Orthopaedic Section and Sports Physical Therapy Section during the transition of *JOSPT* to Alexandria, VA. She was a *JOSPT* Board member from 2001-2004. From 2003-2004 she served in the capacity of Vice President. While a member of the *JOSPT* Board she also served as Chair of the search committee for the current Executive Director/Publisher.

Lola was the Section's Education Committee Chair from 1995-2001. Previous to this she was the Co-chair for 3 years. During Lola's years on the Education Committee, she became well known within the Section and throughout APTA. Her contributions related to this committee are legendary. Educational programming continued to excel and surely assisted attendees in reaching higher potentials as clinicians. Lola made dramatic changes to the existing CSM system while Chair of this committee. For example, each SIG began designating an Education Chair that was responsible for developing CSM educational programs that would be of particular interest to its members.

Throughout her years on the Education Committee and later as a Section officer she was always a strong advocate of member education and striving to assure that any publication or program sponsored by the Section was of excellent quality.

Lola has provided visionary support for many areas in the Section such as the Knee/Patellofemoral Education Group, the Physical Therapist Assistant Education Group, and the Animal Physical Therapist SIG. All who have worked with Lola know that she is diplomatic and is a consensus builder. She can always be counted on to put the Section's interests first above any self interests. One of Lola's greatest assets to the Section has been her ability to bring many talented members into the functioning and administration of the Section. The Section continues to greatly benefit from members who were initially

brought into various committees and other activities of the Section with Lola's encouragement and mentoring.

For Lola's long history of outstanding service to the Orthopaedic Section and for the enduring value of her exceptional contributions, it is most fitting that Lola receive this great honor.



**Kelly Fitzgerald, Research Chair
congratulates Paula Ludewig.**

ROSE EXCELLENCE IN RESEARCH AWARD

The purpose of this award is to recognize and reward a physical therapist who has made a significant contribution to the literature dealing with the science, theory, or practice of orthopaedic physical therapy. The submitted article must be a report of research but may deal with basic sciences, applied science, or clinical research.

The recipient of the 2005 Rose Excellence in Research Award is **Paula M. Ludewig, PT, PhD** for a manuscript entitled *Effects of a Home Exercise Programme on Shoulder Pain and Functional Status in Construction Workers in Occup Environ Med*. 2003;60: 841-849. The coauthor of this article is John D. Borstad.



**Paula Ludewig with coauthor,
John Borstad.**

Dr. Paula Ludewig received her BA in physical therapy from the College of St. Scholastica, and her MA in Physical Therapy and PhD in Exercise Science from the University of Iowa. Her research and teaching interests are in the area of orthopaedic biomechanics, with particular interest in mechanisms of injury and rehabilitation approaches for the shoulder. Dr. Ludewig has presented her research at national and international meetings and has authored or coauthored over 20 peer reviewed manuscripts. Her work has been funded by the Foundation for Physical Therapy, NIOSH, the Center to Protect Worker's Rights, the Minnesota Medical Foundation, and NIH. Dr. Ludewig is a past recipient of the Mary McMillan Scholarship as a Doctoral Candidate. She also serves as an Associate Editor for the *Journal of Orthopaedic & Sports Physical Therapy* and as a manuscript reviewer for a number of professional and scientific journals. Dr. Ludewig is currently an Associate Professor in the Program in Physical Therapy, Department of Physical Medicine & Rehabilitation at the University of Minnesota.

**Journal of Orthopaedic & Sports Physical Therapy Awards
2004 JOSPT Excellence in Research Award**

Presented to: Marc A. Sherry, PT, LAT, CSCS
Thomas M. Best, MD, PhD

**2004 George J. Davies – James A. Gould Excellence in
Clinical Inquiry Award**

Presented to: Captain David A. Browder, DPT, MS, OCS
Richard E. Erhard, PT, DC, FAAOMPT
Sara R. Piva, PT, MS, OCS, FAAOMPT

Congratulations to all the 2005 Award Winners!

ROCKY MOUNTAIN UNIVERSITY
OF HEALTH PROFESSIONS
PROVO, UT

Physical Therapy Degrees

Doctor of Science (DSc)

SPECIALIZING IN:

Clinical Electrophysiology • Geriatrics
Hand Rehabilitation • Neurology
Orthopaedics and Sports • Pediatrics

Master of Science (MS)

Transitional Doctor (DPT)

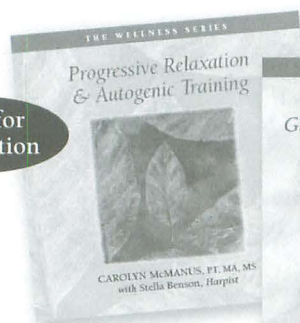
- Traditional Classroom Environment
- No Need to Relocate
- Evidence-Based Medical Education

www.rmuohp.edu (801) 375-5125

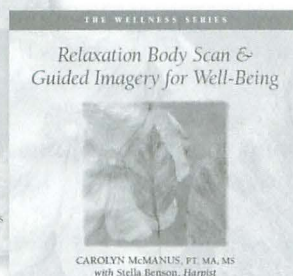
Help patients maximize what they can do to manage chronic tension, pain and disease.

Resources from Carolyn McManus, PT, MS, MA,
Clinical Coordinator for Rehabilitation Wellness Services
at Swedish Medical Center, Seattle, Washington

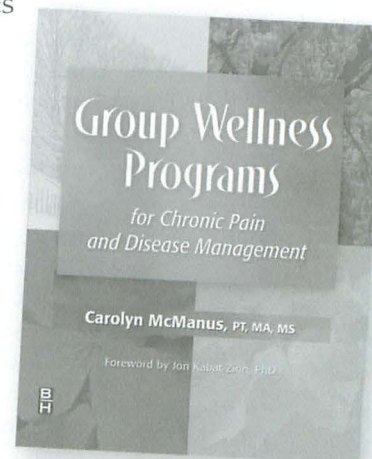
CDs for
Relaxation



Progressive Relaxation
and Autogenics



Relaxation Body Scan &
Guided Imagery for Well-Being



Group Wellness Programs for
Chronic Pain and Disease Management

Available online at
CarolynMcmanus.com and amazon.com

ORTHOPAEDIC SECTION, APTA, INC. COMBINED SECTIONS MEETING

Board of Directors Meeting • New Orleans, LA • February 24-25, 2005

MINUTES

Michael Cibulka, President, called a regular meeting of the Board of Directors of the Orthopaedic Section, APTA, Inc. to order at 7:30 PM Central Standard Time on Thursday, February 24, 2005.

Present:

Michael Cibulka, President
Tom McPoil, Vice President
Joe Godges, Treasurer
Gary Smith, Director
Jay Irrgang, Director
Bob Rowe, Practice Chair
Kelley Fitzgerald, Research Chair
Ellen Hamilton, Education Chair
Mary Ann Wilmarth, ISC Editor
Adam Smith, Membership Chair
Chris Hughes, OP Editor
Rick Watson, PR/Marketing Chair
Deborah Lechner, President, OHSIG
Steve Paulseth, President, FASIG
Joe Kleinkort, President, Pain SIG
Jeff Stenback, Outgoing President, PASIG
Steve Strunk, Vice President, Animal SIG
Bill O'Grady, Incoming Director
Susan Clinton, Incoming President, PASIG
Steve Levine, APTA Liaison
Tara Fredrickson, Executive Associate
Terri DeFlorian, Executive Director

Absent:

Sue Michlovitz, Nominating Chair
Robert Johnson, Specialization Chair

The January 18, 2005 Board of Directors conference call meeting minutes were approved as written.

=MOTION 1= Ms. Wilmarth moved to approve ISC 17.1 *Billing and Insurance Issues in Physical Therapy Practice* for January - March 2007. ADOPTED (unanimous). Fiscal Implication: This would be a normal budget item in the 2007 budget.

=MOTION 2= Ms. Wilmarth moved to approve ISC 17.2 *Vestibular Rehabilitation, Dizziness, Balance, and Associated*

Issues in Physical Therapy for April - September 2007. ADOPTED (unanimous). Fiscal Implication: This would be a normal budget item in the 2007 budget.

=MOTION 3= Ms. Wilmarth moved to approve ISC 17.3 *Performing Arts* for October - December 2007. WITHDRAWN. There was not a firm commitment from the Performing Arts SIG to assist with this course at this time. Contact will be made with the SIG and an update on the status of this course being published in 2007 will be discussed on the April Board of Directors conference call.

=MOTION 4= Mr. Watson moved that the Orthopaedic Section Board of Directors approve paying Rick Watson, Public Relations/Marketing Chair, the additional cost of \$202 for hotel at CSM 2005. ADOPTED (unanimous). Fiscal Implications: \$202.00.

=MOTION 5= Mr. Watson moved that the Orthopaedic Section Board of Directors approve paying Rick Watson, Public Relations/Marketing Chair, the additional cost of \$102.36 for airfare to CSM 2005. ADOPTED (unanimous). Fiscal Implication: \$102.36.

=MOTION 6= Mr. Hughes moved that the Orthopaedic Section contract with Cascade Subscription Service, Inc. to do a test run on *Orthopaedic Physical Therapy Practice* to obtain new subscribers. WITHDRAWN. The Board of Directors charged Mr. Hughes to gather more information and submit it to the Finance Committee for discussion at their August meeting.

=MOTION 7= Mr. McPoil moved that the following motion approving a vestibular rehabilitation independent study course in 2005 be rescinded. This course will not be published until 2007. ADOPTED (unanimous)

November 18, 2004 Board of Directors Conference Call Minutes

=MOTION 3= Ms. Wilmarth moved to approve adding a 3-monograph course entitled Vestibular Rehabilitation to the 2005 ISC schedule. ADOPTED (Tom McPoil, approve; Joe Godges, approve; Gary Smith, approve; Jay Irrgang, approve; Mike Cibulka, absent).

=MOTION 8= Mr. Kleinkort moved to have the Section office along with the Public Relations/Marketing Chair develop a power point presentation on the benefits of membership in the Orthopaedic Section for use by speakers, upon request, at the beginning of their presentation to promote the Section. The presentation will be developed by June 2005. ADOPTED (unanimous)

=MOTION 9= Mr. Godges moved that 25% of the money allocated for employee bonus' go to the Executive Director and the Executive Director will allocate the remainder of the money to the staff based upon staff performance in 2004. ADOPTED (unanimous)

=MOTION 10 = Mr. Godges moved that an additional one day lodging and meals be approved for the President and Vice President to come to La Crosse, WI for the Fall Board of Directors meeting for the purpose of conducting the Executive Directors performance evaluation. ADOPTED (unanimous) Fiscal Implication: \$400.

=MOTION 11= Mr. Godges moved to nominate Tara Jo Manal to replace Pam White on the Finance Committee beginning June 2005. ADOPTED (unanimous)

The meeting adjourned at 4:50 PM CST.

*Submitted by Terri A. DeFlorian,
Executive Director*

ORTHOPAEDIC SECTION, APTA, INC.

CSM 2005 ANNUAL BUSINESS MEETING MINUTES

NEW ORLEANS, LOUISIANA • FEBRUARY 26, 2005

I. CALL TO ORDER AND WELCOME – President, Michael Cibulka, PT, MHS, OCS

- A. The agenda was adopted as printed.
- B. The annual membership meeting minutes from CSM in Nashville, Tennessee on February 7, 2004 were adopted as printed in Volume 16:2:04 issue of *Orthopaedic Physical Therapy Practice*.

II. INVITED GUESTS

A. PT/PAC – Tom DeAngelis

In 2004 the PAC was very successful in raising over \$938,000 which was an all time record for the PAC. For the 2-year election cycle this put the PAC up to \$1.7 million which was about \$200,000 over their goal. The key to having a strong PAC is having enough money where people who want your money start recognizing you and inviting you to the table and asking you to start supporting their campaign. This makes it easier for the individuals at APTA to get a foot in the door and letting their voice be heard. If the APTA does not have a strong PAC we need to recognize that other groups out there that do and they will be the ones to step in. Given this, the goal set for CSM is \$70,000 and the goal for the year is \$1 million.

B. Foundation for Physical Therapy Clinical Research Network – Nancy White, PT, MS, OCS

The Orthopaedic Section as well as all the individuals present were thanked for their contributions to the Foundation. The Orthopaedic Section came to the Foundation Board about 5-6 years ago and asked them to look carefully at what the best use of donor dollars would be to get the most research. The result this was the clinical research network. The Foundation is very close to meeting its goal and hopes to announce this June that they have completed funding for \$1.5 million for the clinical research network. The network is in its 3rd and final year of operation is getting ready to make public its results.

C. APTA POPTS Task Force – Fran Welk, PT, DPT, MEd

The biggest impact of POPTS is for orthopaedic physical therapists and orthopaedic certified specialists. The APTA survey results gathered earlier this year indicates that the biggest impact of POPTS are in certain selected areas, 75% of that impact being on the out-patient practice, 77% of that being related to competition from POPTS by orthopaedic surgeons, 80% of that resulting in a loss of referral to specific patient and diagnostic populations, and 82% by retention of certain diagnostic populations

by those orthopaedic surgeons. The APTA will continue to work with physical therapists to resolve this issue and protect the rights of physical therapists to access patient populations.

III. NEW BUSINESS

A. =**MOTION 1**= Mr. Gary Smith moved that the Orthopaedic Section bylaws, Article VII, Section 1, G.1., be amended by striking the following sentence, 'If the Association has an Annual Conference the Board's summer meeting shall be held in conjunction with it'. **ADOPTED**

B. =**MOTION 2**= Ms. Pamela White moved that the Orthopaedic Section utilize an electronic ballot for all members who have e-mail and a U.S. Postal Service mail ballot for all members who do not have e-mail or for those members who request a hard copy of the ballot. **ADOPTED**

C. =**MOTION 3**= Ms. Shaw Bronner moved that the Orthopaedic Section request on the annual APTA Section dues renewal form include a check off section for special interest group membership. **ADOPTED**

Reports from the Board of Directors, Committee Chairs, and SIG Presidents are located on the Orthopaedic Section web site (www.orthopt.org).

ADJOURNMENT 10:50 AM

Destruction of Election Ballots Announcement

The Orthopaedic Section will destroy all election ballots from the last election within 90 days of the election results being presented at the Business Meeting at the Annual Meeting if no one has contested the vote.

A new feature to inform readers of useful resources available on the internet.



www.merckmedicus.com
A web portal resource for patients and professionals.

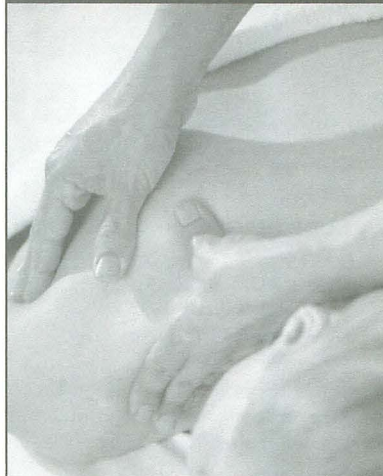
Developed by Merck & Co. along with other medical providers, *merckmedicus.com* is a content rich, ad free web portal for health professionals and consumers alike. Key topic areas include: medical library, professional development, patient resources, mobile merck medicus, whitecoat e-assistant, and specialty pages.

Several of the links require free registration but many pages do not. For example the *Best Practice of Medicine* link under the medical library tab has a wealth of information classified according to major categories of medicine such as oncology, cardiology and neurology. The link then highlights diagnosis and treatment patterns. Patient guides included in this section are easy to navigate and all contain printer friendly options. Daily health news and updates can also be found on the site as well as a quick search link to Medline (PubMed). If you become a subscriber, then you are able to view additional patient handouts, download resources to your PDA, and even download slides and create custom medical illustrations for your presentations. A quick visit to this site will be well worth the effort.



NORTON SCHOOL
OF LYMPHATIC THERAPY

MLD/CDT LYMPHEDEMA CERTIFICATION COURSES



- COLUMBIA, MISSOURI**
Ellis Fischel Cancer Center
April 11 - 23, 2005
- NAPA, CALIFORNIA**
Queen of the Valley Hospital
May 9 - 21, 2005
- RED BANK, NEW JERSEY**
June 6 - 18, 2005
- BOSTON, MASSACHUSETTS**
June 13 - 25, 2005
- CHICAGO, ILLINOIS**
Northwestern University
July 11 - 23, 2005
- ROCHESTER, MINNESOTA**
The Mayo Clinic
August 1 - 13, 2005
- DALLAS, TEXAS**
Easter Seals of Greater Dallas
September 12 - 24, 2005
- ALEXANDRIA, VIRGINIA**
Inova Alexandria Hospital
October 10 - 22, 2005

the premier school
for
lymphedema education

This course meets the qualifications of the Lymphology Association of North America (LANA) for further LANA Certification in Lymphedema Therapy and is accredited by the Florida Physical Therapy Association for CEUs.

(866) 445-9674 Toll-Free
info@NortonSchool.com
www.NortonSchool.com



Diane Lee is an internationally-recognized authority on the assessment and treatment of lumbopelvic-hip dysfunction. Complete reference to Lee's integrated approach is now available on DVD.

Knowledge and treatment tools for the lumbopelvic-hip region

- **Lumbopelvic-Hip Integrated Approach DVD**
Essential two-disc set packed with 4½ hours of lectures, video demonstrations of assessment, treatment techniques and exercises#938PKG
- **The Pelvic Girdle** Lee's landmark 3rd edition of research and clinical applications#833-3
- **The COM-PRESSOR™** revolutionary pelvic compression belt; adjustable for both location and amount of compression#677/#678
- **...and more** Diane Lee resources in our **Free Vol. 17 Catalog. Call today.**

OPTP
Tools for fitness • Knowledge for health

Phone: (763) 553-0452
Fax: (763) 553-9355
www.optp.com

Free Catalog: 1-800-367-7393

©2004 OPTP

DogLeggs®

Products for
the health and
comfort of pets

DOGLEGGs ...the product

- Useful in treating hygroma, arthritis, calluses
- Non-restrictive
- Effective post-surgical care
- Custom sized and machine washable



DogLeggs®
BuddyBag®
Made in USA



BUDDYBAGS:

- Safe
- Non-electric solution for heat therapy
- Made from non-toxic materials.
- Effective
- Provides gentle long lasting heat
- Doesn't draw heat away from patient after device cools
- Supports limb and body position to aid in healing



For more information on these and other
DogLeggs products, go to our website or call today!

www.dogleggs.com

DogLeggs

2104 Thomas View Road • Reston, Virginia 20191
703-715-0333 • 800-313-1218



OrthoVet Splints

YOUR SMALL ANIMAL
SPLINTING SOLUTION

(541)
544-2435
267 N. Morrow Road
Tygh Valley, OR
97063



SIZES FOR MOST BREEDS
also, feline sizes



www.orthovet.com

Intellect® LEGENDXT

“An Exceptional
Therapy System”



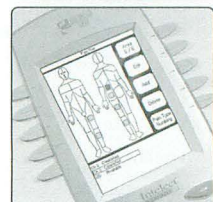
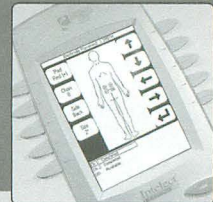
Intellect is a name the clinical rehabilitation community has relied on for many years. Well known for its exceptional clinical performance, continual quality, low cost and ease of use, Intellect has evolved to an exceptional new design and function. The new Intellect Legend XT is a clean modular design available in two or four channel electrotherapy or combination electrotherapy ultrasound systems. A modular design means affordability as it allows the clinician to select a two-channel system now and add two more channels later without significant cost.

- Modular Design
- Patient Data Cards
- Pain Profiles
- User Defined Protocols

2 Channel Combo as low as \$2495.00

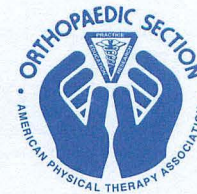
1-800-834-7058

 **Quality Health
Products, Inc.**





OCCUPATIONAL HEALTH PHYSICAL THERAPISTS SPECIAL INTEREST GROUP



ORTHOPAEDIC SECTION, APTA, INC.

Spring 2005

Volume 17, Number 1

Case Study: Designing an Evidenced-based Work Conditioning Program for a Client with Chronic Low Back Pain

Elizabeth Bollman, MPT; Angela Dolder, PT, MA, CRC

As the APTA continues to encourage clinicians to develop an evidence-based practice, physical therapists are challenged to read, understand, and incorporate findings in the literature into treatment planning. Whether you are an experienced clinician, recent graduate, or a physical therapy student, sorting through journal articles can be a confusing and frustrating task. However, it also provides you with an opportunity to support your clinical expertise with measurable outcomes. As a physical therapy student completing my final clinical experience, I was asked to create a cost effective, work conditioning program for a patient with chronic low back pain. The following case study outlines the development and implementation of a successful evidence-based plan of care for a client to return to work full duty.

In the United States, approximately \$8 billion is spent annually on medical and rehabilitative treatment for chronic low back pain (CLBP).¹ Cases of CLBP account for up to 40% of workers' compensation losses.^{2,3} Despite the enormous cost associated with CLBP and prevalence of back injury compensation claims, the research does not agree on a specific

approach to treatment. And, for most injuries research will not provide a single solution; however, a literature review does provide a variety of evidence to guide treatment.

The client was a 26-year-old male who presented to work rehab with 4/10 radicular pain in the left lower extremity. He was employed with a glue manufacturing company as an Industrial Level 3 Batch Operator with physical demands in the heavy/very heavy strength level. Following this injury, he continued to work on light duty. The client had a history of a back injury at L5-S1, which had occurred 2 years prior to this most recent exacerbation. In this particular case, the client's employer was a self-insured agency. Due to this, the client had concerns regarding lost wages during the work conditioning program. In consideration for the client's financial concerns, the rehabilitation program required that the maximum time spent at work conditioning be limited to 3 hours a day. The estimated reimbursement for the entire program was \$3500 to \$4000 including the initial FCE and 24 visits. The client's employer was responsible for payment.

At baseline, a functional capacity evaluation (FCE) was performed and included a musculoskeletal assessment, sub-maximal cardiovascular test, nonmaterial handling tolerance assessment, and a physical capacity assessment for material handling. Baseline data from the FCE was used to classify the client's injury and determine the treatment category from

Board of Directors and Committee Chairs

PRESIDENT

Deborah Lechner, PT, MS

ErgoScience, Inc

15 Office Park Circle, Suite 214

Birmingham, AL 35223

Ph: (205) 879-6447 Fax: (205) 879-6397

Email: deborahlechner@ergoscience.com

Ph: (218) 728-6455 Fax: (218) 728-6454

Email: mmiller@workwell.com

4191 Westcott Drive NE

Iowa City, IA 52240

Ph: (319) 354-0838 Fax: (319) 354-0453

Cell: (319) 430-3382 (best choice)

Email: dbossen@atlasergo.com

VICE PRESIDENT

Kathleen Rockefeller, ScD, PT, MPH

University of Illinois at Chicago

Department of Physical Therapy (M898)

1919 West Taylor Street, 4th Floor

Chicago, Illinois 60612-7251

Ph: (312) 996-1503 Fax: (312) 996-4583

Email: karock@uic.edu

SECRETARY

Barb McKelvy, PT

Strategic Rehab Options

4887 Smoketalk Lane

Westerville, Ohio 43081

Ph: (614) 496-7996 Fax: (614) 891-3563

Email: barbmckelvy@aol.com

RESEARCH COMMITTEE

David Miller PT, PhD

Department of Physical Therapy

Springfield College

263 Alden Street

Springfield, MA 01109

Ph: (413) 748-3539

Email: dmiller@spfldcol.edu

EDUCATION COMMITTEE

Dee Daley, PT, MSHOE, Chair

WorkWell Systems

155 East Vermont Ave

Southern Pines, NC 28587

Ph: (910) 693-1558

Email: kanandarqu@aol.com

NOMINATING COMMITTEE

Jennifer Steiner, PT, OCS, MBA, Chair
HealthSouth

1935 County Road B2, Suite 140

Roseville, MN 55113

Ph: (651) 636-2666 Fax: (651) 636-0548

Email: jennifer.steiner@healthsouth.com

TREASURER

Margot Miller, PT

Isernhagen Work Systems

11E Superior St, Ste 370

Duluth, MN 55802

PRACTICE & REIMBURSEMENT COMMITTEE

Drew Bossen, Chair

Atlas Ergonomics

which a plan of care was developed to meet the client's goal of return to work at the same job and same employer, outlined in Table 1. According to Delitto et al, the client would be classified in the Stage III treatment category. Patients with low back pain, who are classified in Stage III are able to complete ADLs with little difficulty, however, lack the capacity to perform occupational tasks.⁴ Because the client demonstrated average cardiovascular endurance, good LE strength, and trunk ROM within functional limits, with the exception of right rotation, he was appropriate for a work conditioning program that would improve overall fitness. Furthermore, the examination revealed that pain, decreased physical capacities for material handling, decreased tolerance for sustained static standing, and restrictions at work supported the benefits of including work simulation activities.

While reviewing the literature it was difficult to identify and compare distinct treatment approaches and experimental outcomes, due to the variability in treatment combinations cited. Some core components of CLBP management highlighted in the literature suggested that an aggressive lumbar strengthening program be followed in combination with general conditioning and McKenzie extension exercises.² Other evidence supported dynamic stabilization and minimizing load on the spine as primary methods to direct CLBP care.⁵ Measures of program success or failure included reuse of medical treatment, return to work (RTW), pain, and cost.^{2,6-8}

Common treatment strategies that proved to be successful in several studies formed the basis of the client's program that included: a stretching program, strength training, aerobic activity, dynamic lumbar stabilization exercises, material handling, and work simulation. On the client's first visit he completed a general orientation that introduced the client to a whole body stretching, strengthening, and aerobic program in which all work rehab clients participate. In the first week of work conditioning, the client's goals were to attend 2 hours of work conditioning and to become independent in this program, consulting with therapists to increase weight or orient him to new equipment. Research has indicated that patients who participate in a general conditioning program reported long-term benefits. Significant decreased pain and disability have been found 6 months and 12 months after participation in an exercise program for an experimental

group vs. a control group.⁶ Patients in the experimental group participated in a program similar to the one used in this case, including low impact aerobics, stretching, strengthening, and encouraging proper spine position.⁶

Material handling was incorporated into the work conditioning program during week 3, starting lifts in the light-medium strength level determined at the initial FCE. Occasional lifts were performed 3 times each, while the frequent lifts were performed 10 times each with the exception of the carry and push/pull, which were performed only 1 time. In order to progress towards increasing the client's tolerance for a full work day, at week 3, treatment time was increased to 3 hours/day allowing for progressions and additions to be made to the program. The client was instructed in proper body mechanics to prevent injury during lifts at all levels, carry, and push/pull. A study by Lieber et al found that educating patients through demonstration and lecture in safe lifting body mechanics translated into clients independently demonstrating the proper techniques.³ The principles covered in the study were the following: maintain spinal alignment, keep the object close to the center of gravity, avoid twisting, and maintain a wide base of support.³ The client in this case was instructed in the anatomy and biomechanics of the spine, was presented an opportunity to analyze lifting technique during a group class, and was provided individual feedback during work simulation, all which emphasized the principles outlined above.

Researchers have suggested that focusing treatment on pain and activity tolerance rather than pain level has a significant benefit in clients' RTW success.⁷ Pain tolerance has been described as the ability to continue working despite experiencing pain symptoms.⁷ In this case, the client was instructed to work within a tolerable level of pain. He was required to note his pain pre- and postactivity, and activity duration with or without taking rest breaks, informing therapists of changes in symptoms.

With successful material handling in the medium strength level, the client was released by his physician to perform tasks at work that included material handling up to 50#. Dynamic lumbar stabilization (DLS) exercises were added to promote neutral spine posture during functional tasks. McGill has warned that loading the spine throughout the range of motion during abdominal strengthening could be

Table 1. POC Outline

Plan of Care: Stage III Treatment Category (Delitto et al)	
Diagnosis: Practice Pattern 4F: Impaired Joint Mobility, Motor Function, ROM and Reflex Integrity Associated with Spinal Disorders (ICD-9 code: 847.2)	
Week 1 & 2	
2 hrs. 5 days	Work conditioning (WC): aerobic & strength training, stretching; Education: pain management
Week 3	
3 hrs. 5 days/wk	WC; Material handling (light –medium); Education: body mechanics & lifting techniques
Week 4	
3 hrs. 5 days/wk	WC; Material handling (medium)
Week 5, 6, 7	
3 hrs. 5 days/wk	WC; Work simulation: work circuit; dynamic lumbar stabilization exercises

detrimental to a low back rehabilitation program.⁵ Furthermore, research has supported avoiding abdominal strengthening activities such as bent-knee sit-ups and straight leg sit-ups and cross-knee curl-ups that put greater than 2900 N of compressive force on the lumbar spine.⁵ Although it can be difficult to teach a patient to find neutral spine, improvement in performance of DLS does occur with practice.⁹ Consideration was taken in choosing the following exercises for the client. Supine exercises included abdominal bracing, bracing with arms, bracing with legs supported, and bracing with arms and legs supported. Prone single arm raises, single leg raises and quadruped arm raises also were included. These DLS exercises were chosen based on the relatively low load placed on the lumbar spine and were completed on a daily basis at 2 sets of 15 repetitions.⁵

Also, job specific activities were incorporated into a work circuit, which the client performed in addition to the fitness program. Components of the circuit such as time and weight were increased over the next 3 weeks. Initial and final circuits are listed in Table 3. The specific job tasks, that the client had not been able to perform at work, were simulated in the circuit. In order to more clearly understand and simulate the client's job, an onsite job analysis was performed.

Seven essential job functions were analyzed by description, frequency, duration, position required, and force required to perform each. Briefly, the client's position required him to roll drums weighing up to 500# on and off of skids manually or using a drum dolly, lift and pour 50-100# bags of chemicals in to mixing stations, and operate a forklift. From the job analysis, a drum roll, chest level lateral transfer, and bilateral bucket carry were included for job simulation and became primary targets for improving physical capacity and increasing tolerance for return to full duty.

A re-examination was performed on the client's 24th visit, after the client had been released for full duty by the physician of record. Goals and outcomes had been successfully met (see Table 2), and improvement in the client's capacity for essential job functions is illustrated in Figure 1. A standard follow-up via telephone was scheduled for 1 month and 3 months postdischarge for ongoing outcome assessment.

Finding a balance in the rehabilitation plan to address a patient's pain, financial needs, musculoskeletal deficits, and functional limitations or disability presents the work rehab team with a difficult challenge. This case illustrated that evidence-based practice was successful in managing a client with chronic low back pain, decreasing pain from 4/10 to

Table 2. Goals for Client to RTW Full Duty

Goals for Discharge	
1. Client will demonstrate physical demands within the heavy strength level, maintaining good body mechanics and neutral spine for 100% of a work circuit.	4. Client will transfer a very heavy drum on/off pallet 4 consecutive times demonstrating good body mechanics by pushing the drum and tipping it to roll.
2. Client will participate in 3 hours of work conditioning and 5 hours of work each day with pain level < 4/10.	5. Client will bilaterally carry 45# buckets 4 times in a 30-minute circuit, demonstrating proper body mechanics while picking up and placing the load down on floor.
3. Client will lift 100#, 16 times at chest level and pivot 180° to transfer object to a surface at the same level, during a 30-minute work circuit.	

Table 3. Work Circuit Progression

Initial Circuit- Week 5		Final Circuit- Week 7	
Drum roll	140# x 2	Drum roll	200# x 2
Lifts		Lifts	
Floor – waist	53# x 3	Floor – waist	63# x 3
12" Floor-waist	60.5# x 3	12" Floor-waist	70# x 3
Waist- shoulder	55# x 3	Waist- shoulder	70# x 3
Shoulder-overhead	55# x 3	Shoulder-overhead	60# x 3
Mid body transfer	70# x 3	Mid body transfer	100# x 4
Carry	55# x 1	Bil. Bucket Carry	45# each /30' x1
Push/pull	200# x 1	Push/pull	200# x 1
Drum roll	140# x 2	Drum roll	200# x 2
BTE- push/pull	10lbs force 30 secs x 2	BTE- push/pull	15lbs force 1min x2
Drum roll	140# x 2	Drum roll	200# x 2
Lifts		Lifts	
Floor – waist	27# x 10	Floor – waist	37# x 10
12" Floor-waist	32# x 10	12" Floor-waist	42# x 10
Waist- shoulder	27# x 10	Waist- shoulder	42# x 10
Shoulder-overhead	29.5# x 10	Shoulder-overhead	34# x 10
Mid body transfer	30# x 4	Mid body transfer	100# x 4
Carry	55# x 1	Bil. Bucket Carry	45# each /30' x1
Push/pull	200# x 1	Push/pull	200# x 1
Drum roll	140# x 2	Drum roll	200# x 2
BTE- push/pull	10lbs force 30 secs x 2	BTE- push/pull	15lbs force 1min x2

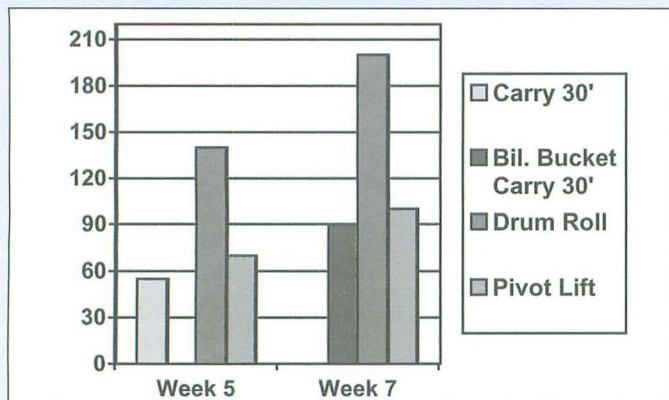


Figure 1. Client demonstrated improvement in physical capacity for work circuit and specifically the essential job functions required to meet RTW goal.

1/10. The program promoted independent pain management and injury prevention strategies. And, the program design minimized loss of wages for the client and was cost effective for the employer. As a physical therapy student this was a valuable experience that has encouraged me to continue to look towards the literature when making clinical decisions in my first year as a licensed physical therapist.

REFERENCES

- Greenberg SN, Bello RP. The work hardening program and subsequent return to work of a client with low back pain. *J Orthop Sports Phys Ther.* 1996;24:37-45.
- Leggett S, Mooney V, Matheson LN, et al. Restorative exercise for clinical low back pain. *Spine.* 1999;24:889-898.
- Lieber SJ, Rudy TE, Boston JR. Effects of body mechanics training on performance of repetitive lifting. *Am J Occup Ther.* 2000;54:166-175.
- Delitto A, Erhard RE, Bowling RW. A treatment-based classification approach to low back syndrome: identifying and staging patients for conservative treatment. *Phys Ther.* 1995;75:470-489.
- McGill SM. Low back exercises: evidence for improving exercise regimens. *Phys Ther.* 1998;78:754-765.
- Moffett JK, Torgerson D, Bell-Syer, S, et al. Randomised controlled trial of exercise for low back pain: clinical outcomes, costs, and preferences. *BMJ.* 1999;319:279-283.
- Joy JM, Lowy J, Mansoor JK. Increased pain tolerance as an indicator of return to work in low-back injuries after work hardening. *Am J Occup Ther.* 2001;55:200-205.
- Raniville, MD, Jouve CA, Hartigan C, Martinez E, Hipona M. Comparison of short- and long-term outcomes for aggressive spine rehabilitation delivered two versus three times per week. *Spine J.* 2002;2:402-407.
- Hagins M, Adler K, Cash M, Daugherty J, Mitrani G. Effects of practice on the ability to perform lumbar stabilization exercises. *J Orthop Sports Phys Ther.* 1999; 29:546-555.

Beyond Kegels Seminars

Locations 2005

May 1	Minneapolis*	Sept. 25	Seattle
June 24-25	Seattle	Oct. 21-22	Boston
June 26	Seattle*	Oct. 23	Boston*
Aug. 26-27	Philadelphia	Dec. 2-3	Seattle
Aug. 28	Philadelphia*	* Advanced Techniques & Special Populations	
Sept. 23-24	Seattle		

- Pelvic Muscle Reeducation
 - Bladder and Bowel Health
- Janet A. Hulme PT, MA

Compare!

Beyond Kegels	Kegels
3 1/2 weeks	6 1/2 weeks
61% Dry	48% Dry

Non-Invasive Approach!

Call 1-800-549-8371 or visit www.phoenixpub.com

Pelvic Rotator Cuff Seminars

Locations 2005

May 13-14	West Bend, WI	New!	
May 20-21	St. Louis		
June 11-12	Arlington	July 22-23	Missoula, MT
June 27	Seattle	Aug. 20-21	Fort Worth
July 8-9	Minneapolis	Sept. 9-11	Chicago

Treating:

- Low Back and SI Dysfunction
- Balance and Gait

Janet A. Hulme PT, MA

ROLL CONTROL FOR

Call 1-800-549-8371 or visit www.phoenixpub.com

FOOT & ANKLE

SPECIAL INTEREST GROUP ORTHOPAEDIC SECTION, APTA, INC.

MESSAGE FROM THE PRESIDENT

Stephen Paulseth, President

The past year has been very busy for our SIG. The new executive committee has been diligently trying to maintain the high level of the outgoing officers from last term. This included planning and implementing last month's CSM program.

The FASIG hosted the second Research Retreat at USC, *Measuring Foot Motion: Forward and Inverse Dynamic Models* on April 30-May 1, 2004. Like the first Retreat, the second was well attended by several international foot experts who summarized a consensus on: What have we learned? What don't we know? Where do we need to go? The summary was reported in *JOSPT* 34(9), 2004. The retreat budget was a break even affair.

The FASIG is continuing to work on updating the terminology for the foot and ankle. This is in order to standardize a means of effectively communicating terms used in research and clinical application of the foot. We also are taking steps to assess the curriculum of entry-level PT programs with respect to the Foot and Ankle. This includes knowledge of what is being taught concerning anatomy, biomechanics, assessment, treatment, and research. The goal of this process is to make recommendations on what the basic level of information should be in all PT programs in this country. From there, advanced training and continuing education can be more homogenized. This will identify to other health care practitioners our basic and advanced level of training for the treatment of the foot. This will take tremendous effort and requires assistance from our membership. If you wish to participate in this process, please contact me at stephen@paulsethpt.com. Thank you!

BUSINESS MEETING MINUTES

APTA Combined Sections Meeting
New Orleans, LA

Stephen Paulseth, President, called the Foot & Ankle Special Interest Group (FASIG) Business Meeting to order at 5:13pm on February 25, 2005. The meeting was held at the Convention Center, New Orleans, LA.

MOTION: It was moved by Steve Paulseth to adopt the minutes from the February 9, 2004 meeting of the FASIG Business Meeting. Mark Cornwall seconded the motion. The minutes were approved unanimously.

REPORTS:

Chair. The Special Interest Group (SIG) would like to move forward with recommendations to physical therapy educational programs regarding the minimal standards of what should be taught in entry-level physical therapy programs.

Vice-Chair. Cheryl Mauer talked about the success of this year's preconference course and that conversations are currently being held regarding another preconference course in San Diego that would focus more on a 'hands-on' approach to foot orthotics. Future programming would like to be responsive to the entire membership. Attempts at gaining the information concerning what they would like to have for programming will continue to be pursued.

Secretary/Treasurer. Mark Cornwall reported that the budget from the Orthopaedic Section was increased slightly to provide \$800 vs. \$600 for reimbursement of travel for SIG leadership. It was not known at this time the amount of money raised by the most recent preconference course or that of the past research retreat. The SIG, however, is financially healthy and operating in the 'black' with approximately \$30,000 in a reserve fund.

Research Committee. Debbie Nawoczenski reported for Irene McClay-Davis. She indicated that the research retreat held from April 30 to May 1, 2004 in Southern California was a tremendous success. The keynote speakers for that retreat were Neil Sharkey from Pennsylvania State University and Arne Lundberg from the Karolinska Institute, Sweden. The topic for the conference was "Measuring Foot Motion: Forward and Inverse Dynamics."

ELECTIONS:

No elections were held at this meeting. The Secretary/Treasurer position is open for election at the 2006 meeting in San Diego.

OLD BUSINESS:

No report was available concerning the previous suggestion to survey physical therapy education programs.

NEW BUSINESS:

It was suggested that Section members be surveyed again. This would be done in conjunction with a mailing of *Orthopaedic Practice* or possibly via E-mail.

Steve Paulseth reported that attempts to foster a liaison with other professions and associations (podiatry, NATA, AOFAS, CPO, etc.) is ongoing.

Discussion was held about having a method for individuals to identify themselves as a 'foot fellow'. Typically, a 'fellow' is paid \$27 per hour and needs a total of 1000 hours.

The immediate next step is to determine the qualifications for someone to host such a fellowship. An obvious need is to find someone within the SIG to spearhead this initiative. There were no volunteers to assume this role from those present at the meeting.

Possible Future Programming.

- Somatosensory/Neurological Influences on Foot Function
- Case Studies
- Diabetic and/or Rheumatoid Foot
- Foot Orthotics and Exercise (always popular)

It was emphasized again the need to survey membership and determine what they would like.

Steve Paulseth encouraged the SIG to be involved in "Hooked on Evidence" sponsored through the APTA. This

could be very beneficial to DPT students who need to use evidence as part of their final projects.

The Orthopaedic Section would like a brochure from the F&A SIG to give out at future meetings. Heather Smith agreed to work on this project.

MOTION: It was moved by Steve Reischl to adjourn the meeting until February 2006 in San Diego. Cheryl Mauer seconded the motion. The motion passed and the meeting was adjourned at 6:11pm.

*Respectfully Submitted by,
Mark W. Cornwall, PT, PhD, CPed
FASIG Secretary/Treasurer*

Annual Conference 2005 Preconference Course

Boston, Massachusetts * June 7 & 8, 2005

8:00 AM – 5:00 PM (each day)

"An Introduction to Dance Medicine"

Sponsored by the

Performing Arts Special Interest Group (PASIG)

Orthopaedic Section, APTA, Inc.

Course Description: **This two-day beginner to intermediate level course will include descriptions of dance forms, vocabulary, and the dancer's environment. The etiology of dance injuries, treatment interventions, and progression to return to full function will be described. Discussion of how to screen dancers will also incorporate issues related to technique, diet, and psychological considerations. The course will conclude with a panel discussion on how to establish a practice that treats dancers. (This is a lecture and laboratory course.)**

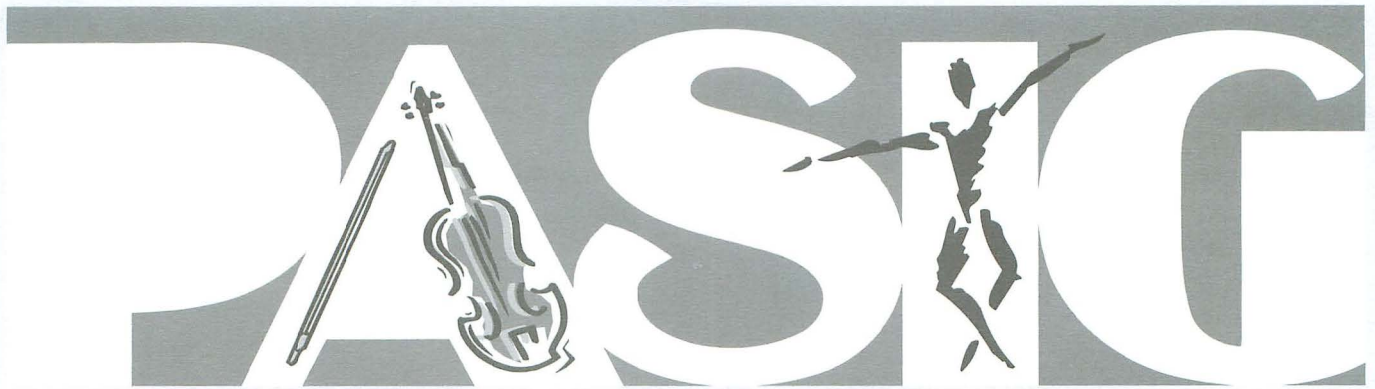
Upon completion of this course, the participant will be able to:

1. Define dance-specific functional movement and vocabulary;
2. Describe the epidemiology of dance injuries relative to primary factors such as anatomic region, gender, type of dance, professional level, etc.;
3. Describe typical variations from normal values in the dancer population in measures obtained on screening exams (e.g., flexibility, range of motion and balance);
4. Describe the most common dance injuries relative to typical examination findings, intrinsic and extrinsic risk factors and epidemiologic injury characteristics;
5. Describe and perform select examination and intervention procedures relevant to the most common dance injuries;
6. Describe the physiological rationale for, and execution of, a graded exercise progression for return to dance function;
7. Describe common strategies for marketing aimed at dancers and dance organizations and identifying resources useful to the dance physical therapist.

Level: Beginner to intermediate

Cost: \$450 PTs (\$400 PTAs & Students) REGISTER SOON! Class size is limited

For more details, contact Tara Fredrickson: 800-444-3982, x203 * tfred@orthopt.org
Orthopaedic Section, APTA, Inc., 2920 East Avenue South, Suite 200, LaCrosse, WI 54601



Performing Arts Special Interest Group • Orthopaedic Section, APTA

PAST PRESIDENT'S MESSAGE

Hello everyone!

CSM 2005 has come and gone and I hope many of you left the conference feeling re-energized and excited about what we do as physical therapists in the performing arts. Our programming was well-received, and we will continue to offer evidence-based resources and material that are a foundation from which you, the practicing clinician, can benefit. Our Business Meeting updated the membership about the 'behind-the-scenes' activity that allows the PASIG to function. We delivered our first student scholarship checks to our new student scholarship recipients, David Lorello and Emily Kahnert. Congratulations and we hope to see them both involved in the organization. Future student scholarships will be awarded annually. We need to spread the word that this scholarship exists and to engender interest in research that is performing arts based. Please visit our website (www.othopt.org) to obtain information on PASIG's webpage as to how you might apply. Our reception was a success and well-attended—hopefully everyone got a chance to network a bit. As always, I encourage those of you who have not already gotten involved to take that big important step. We are a small group, but one that *can* make a difference. What would be possible if each of us did just a little bit to increase interest in the PASIG?; offered a literature review of a performing arts-based article?; manned a booth at a performing arts medical symposium?; held a dance or musician screening at a local school?; or joined one of your own PASIG's committees to share ideas? I'd wager a guess that we would already be looking at a large organization that is vital, visible, and a very real and integral part of the performing arts. I challenge each of you to take that first step—*dare* to say 'yes' and get involved!

I leave my position as your President with a mixture of confidence and a feeling of accomplishment. I certainly know that your new President, Susan Clinton, will do a marvelous job in her new role. She has served the PASIG well as our Secretary in the past and she is ready to get her feet wet. I will remain as an active Past President and have offered to assist her as needed in her new responsibilities. I have enjoyed learning the many components of how our

organization works and with the very diligent efforts of your executive board members, we have been able to do much in the past several years. We published the first "special topics" issue for *Orthopaedic Physical Therapy Practice*; our Description of Specialized Clinical Practice (DSCP) has been completed (originally spearheaded by Jennifer Gamboa during her term as President); we offered our first preconference course, *Introduction to Dance Medicine*, and have added to previous Presidents' efforts by redefining executive board and committee chair job descriptions/responsibilities. We now have a vision statement to accompany our mission statement (both are on our website) and our continuing education and general programming are incorporating more evidence-based material. A job well done to all that have made these accomplishments a reality!

There are no great words that help me express my gratitude for the confidence you have placed in me during my term as your President. But, I can certainly say a huge THANK YOU to all of you who helped make my job easier and to my executive board—without whom I could not have completed these last 3 years. Thank you for the opportunity to serve each of you, and I look forward to continuing my relationship with many of you. Please join me in congratulating all of our newly elected board members and those who are staying on to continue making your organization better.

Get involved, stay involved, and let's move forward!

*All my best,
Jeff Stenback, P.T., O.C.S.
Immediate Past President, PASIG*

PRESIDENT'S LETTER

Greetings to Everyone!

As I begin my term as President for the PASIG I am both excited about the future and very cognizant of the past. I step into this role with very clear markers and guidelines to follow and believe that all organizations work to their maximum potential when the membership maintains an active role. I would like to thank Jeff Stenback, past President, Adrienne McCauley, past Treasurer, and Shaw Bronner, past Nominating Committee Chair for their outstanding contri-

butions to the executive board and the PASIG membership. I would also like to acknowledge Marshall Hagins and Lisa Sattler whom are both stepping down, respectively, from the Practice and Research Committee chairs. I would like to welcome Stefania Bell to the Nominating Committee as member, and Leigh Roberts as Treasurer and Gayanne Grossman as the Nominating Chair to the Executive Board. All of the contributions by membership in the PASIG are voluntary and I encourage each of you to consider taking a more active role in the future activities and committee work.

The PASIG has continued to change and evolve in many positive ways with (1) the addition of the DACP, (2) evidence-based programming, (3) preconference course in dance medicine, and (4) the creation of a CSM student scholarship program which will be based on research submissions to the conference in the future.

Additionally, the Executive Board will revive some issues of research and practice and move these to the forefront of the membership this year. Among the most prominent issues:

(1) Shaw Bronner has been appointed the Research Committee Chair and is moving forward to develop a strategic plan for the creation of a list-serve for accessing performing arts literature and increasing research amongst the membership. The student scholarship for CSM will continue to evolve under this committee's direction.

(2) The Practice Committee will continue the work on the interstate licensing issues and will revisit the development of universal dance and music screens that will help all of the membership to contribute to a data base for improvements in their own practice.

(3) The Education Committee, under the direction of Tara Jo Manal, is committed to providing outstanding programming at CSM with the use of the DACP and evidence-based practice as the guide, as well as, a 2-day preconference course to precede the Boston Annual APTA Conference on dance medicine. Also in development, are off-site regional emergency responder courses which will be geared towards the needs of the Performing Arts PT in the backstage and emergency situations of acute injuries.

(4) The Membership and Public Relations Committee will be merged and will work towards improving the ability to contact members, "find a PT" on the website, and promote the PASIG by updating and keeping information on the website current.

Please contact any of the officers of the Executive Board or committees listed if you have any interest in serving in any of these dynamic ventures. **Committee Chairs** are needed for the **Practice** and the **Membership Management/PR** committees. I look forward to your comments, concerns and commitments to the Performing Arts Special Interest Group!

Caring for the arts brings out the best in all of us!
Susan C. Clinton PT, MHS
President

DANCE MEDICINE PRECONFERENCE COURSE: BOSTON, JUNE 7TH AND 8TH

Did you miss our first preconference course, Introduction to Dance Medicine? This very popular lecture and laboratory course is being offered again as a preconference course at Annual Conference in Boston, on June 7th and 8th, 2005. That's right! Due to strong, positive participant feedback, we have expanded the course to TWO days. Don't miss out! Space will be limited. Contact Tara Fredrickson at the Orthopaedic Section office for more details at 800-444-3982 ext 203.

STUDENT SCHOLARSHIP FOR CSM 2006

If you are a PASIG member and you have an accepted abstract to CSM 06 you can be considered for a \$400.00 scholarship award. The topic must be related to performing arts and physical therapy to be considered. If you are not a member go to www.orthopt.org to learn more. Abstract submission deadline is May 15, 2005. Once your abstract is accepted, contact the PASIG for scholarship application information.

2005 PASIG BUSINESS MEETING MINUTES— FEBRUARY 24, 2005

2/24/05- 6:35pm Central Time

Called to Order

Executive Board Introductions-Jeff Stenback. New President, Susan Clinton; Vice President, Tara Jo Manal; Secretary, Julie O'Connell; Treasurer, Leigh Roberts; outgoing Nominating Committee Chair-Shaw Bronner; new Nominating Committee member; Stephania Bell. Not in attendance: new Nominating Committee Chair-Gayanne Grossman.

Treasurer's Report-given by Jeff Stenback in the absence of outgoing treasurer, J. Adrienne McCauley

There was a motion by Tara Jo and a second by Jennifer Gamboa to accept the 2005 budget. A vote was taken and the budget was passed by the membership.

President's Report-Jeff Stenback

1. The mission and vision statements were re-written by the executive board and accepted by the Orthopaedic Section.
2. The executive board job descriptions were rewritten and accepted by the executive board.
3. DACP (Description of Advanced Clinical Practice) document was used to assist with the PASIG programming here at CSM 2005. Decisions for programming were made on criticality and frequency of the skills used by performing arts physical therapists. This document will be used for future CSM programming.
4. Student Scholarship-2 students: Emily Kanner and David Lorello were awarded the scholarship for this year. They were instrumental in developing this initiative after CSM 2004. Tara Jo will discuss the upcoming student scholarship in the Vice President's report.

Vice President's Report/Education Committee-Tara Jo Manal

1. The CSM 2005 programming was based on the DACP. The treatment of the shoulder was addressed from backstage injury through treatment and case reports were presented. Programming for CSM 2006 will follow a similar format. Tara Jo will put together 12-15 scenarios in the next month that the executive board will evaluate.
2. Student Scholarship-The PASIG is offering one \$400 scholarship to a student who will be presenting research in the performing arts. The student must be accepted to present at CSM 2006. A task force will be set-up the criteria to determine the winner.
3. Preconference Course is being planned for Annual Conference 2005. The Introduction to Dance Medicine Course will be presented at an off-site location at Boston Children's Hospital with the assistance of Mickey Casellas. There will be a meeting tomorrow at 4:30 to discuss this upcoming event.
4. Emergency First Responder Course-The PASIG is looking to offer this course on a regional basis. There are certified instructors who have been contacted and are interested in pursuing this project. This course is important as it will help to certify therapists who can work as good Samaritans as they travel between states with touring arts companies. This is important in states where direct access does not exist.

Research Committee-Lisa Sattler-Chair

No activity was reported by this committee. This committee will assist with the preconference course at annual convention by providing the materials to the attendees.

Media/Public Relations Committee- as J. Adrienne McCauley was not present; Jeff Stenback reported

This Committee worked on the student scholarship for CSM 2005 and the report was given earlier.

Regional Directors-Jeff

The purpose of this group was to create a phone-tree concept within the membership. It has not been successful and thus the committee was retired.

Nominating Committee - Shaw reported for Gayanne Grossman who was not in attendance.

Elections were held for offices of President, Treasurer and Nominating Committee chair. New officers include: Susan Clinton, President; Leigh Roberts, Treasurer; Gayanne Grossman, Nominating Committee Chair and Stephania Bell, Nominating Committee member. For CSM 2006, there will be an opening for Nominating Committee member. In 2006 we will be voting for a new Vice President and Secretary.

Website Ideas-Jeff

The Orthopaedic Section is redoing its website and the PASIG will have a page on it. Jeff Stenback suggested that we put the mission and vision statements on the web. Shaw Bronner suggested the idea of a List-Serve. Members would

be able to sign-up to receive blast emails about newly publicized performing arts research, literature reviews, and current trends in performing arts physical therapy. Other suggested items to include: Mentor list, List of past/future programming, PASIG members organized by state to facilitate communication about backstage performing arts coverage.

Actor's Equity-Jeff

Jeff, Shaw and Marshall Hagins met with Actor's Equity in May and gave recommendations about safe working conditions for injury prevention. The Off-Broadway shows accepted the recommendations at that time. They are also looking for a list of performing arts providers across the country that are able to do backstage coverage.

Acknowledgments: Jeff

Jeff thanked the Board members for their hard work and commitment to the PASIG. Outgoing Board members Shaw Bronner, J. Adrienne McCauley and Jeff Stenback were acknowledged with a plaque for their service to the PASIG. They will surely be missed.

New Business:

Brent Anderson commented that he was disappointed that no new research was presented this year. He made a motion that was Second by Shaw Bronner: **MOTION:** The Research Committee will prepare a strategic plan under the direction of the executive board and print it in the *OP* to promote an active effort of recruiting and promoting performing arts research for CSM 2006. Discussion on the motion: Jeff: It was eye opening that we had no research to present this year. Brent: It is important to start now as the deadline for submission is May 15, 2005. Tara: We should find students that would be willing to assist us and it would make the student eligible for the student scholarship. Joe Berman: We could contact people that have presented in the past or have presented with other organizations: Lisa Shoaf: Authors may be able to present a different angle of their current research so it would be original research presented at CSM. Emily Kanner: She suggested that we advertise in publications such as *Medical Problems of the Performing Artist*. Jeff: He commented that this is not possible as it is not in the budget. The motion was voted on and was passed by the membership.

Jennifer Gamboa: The DACP was accepted for publication and will be done in the second half of this year.

Preconference Course in Boston: Jeff-We will be presenting the Introduction to Dance Medicine Course as a preconference course at the Annual Convention in Boston 2005. It will be held off-site at Boston Children's Hospital with the assistance of Mickey Casellas. The organizing committee for this course will meet on Friday at 4:30.

Joe Berman: He announced that Susan Clinton was acknowledged on the website of WWOZ.org for her work with the New Orleans Musician's Clinic.

The meeting was adjourned at 7:25 PM Central Standard Time.

*Submitted by Julie O'Connell
Secretary*



Pain MANAGEMENT

SPECIAL INTEREST GROUP • ORTHOPAEDIC SECTION, APTA, INC.

LOW-LEVEL LASER THERAPY: NEW POSSIBILITIES IN PAIN MANAGEMENT AND REHAB

Joseph A. Kleinkort, PhD, PT, CIE, DAAPM

Two companion landmark studies in 2000 and 2001 gave support for the 635Nm low-level laser to become the first low-level laser of any kind to be approved by the FDA as safe and effective for treatment of chronic, minor pain relief in conditions of osteoarthritis, muscle spasms, and cervical and thoracic spine strain. These and other studies suggest new possibilities in many areas of pain management and rehabilitation.

The purpose of these clinical studies was to determine the effectiveness of the use of the 635 Nm low-level laser in providing temporary relief of chronic minor neck or shoulder pain by emitting 5 mw of near-infrared light (630 Nm-640 Nm) to the affected area(s) for short durations.† Other devices that emit other wavelengths from 670 Nm, and 800 Nm to 900 Nm show conflicting results.

The 635 Nm laser is technologically different from other laser devices. The 635 Nm laser uses a much lower level of power and a different light wavelength than the other lasers. As a result the findings from these pain studies were used to support a request from the FDA to place this laser into a Class I or Class II Exempt category based on the results of effectiveness.

In 2000, 100 patients were recruited to participate in a randomized, double-blind study of the temporary effects of the 635 Nm low-level laser on ameliorating minor neck and shoulder pain and improving range of motion. Ninety percent of all test group subjects met or exceeded the individual success criteria by demonstrating a 30% improvement in degree of pain rating from pre- to postprocedure measurements while only 14% of all placebo group subjects met or exceeded the success criteria. Temporary improvements in pain levels for test patients were statistically significant at the $P < 0.05$ level. For the majority of patients, the reduction in degree of pain immediately after treatment with the laser was maintained or reduced further 24 hours posttreatment. Postprocedure linear range of motion measurements suggested significant improvements in range of motion for the right side of the neck and both right and left sides of the shoulders.

In 2001, out of a group of 100 patients, 65.1% of the test subjects met individual success criteria in improvement of pain, while only 11.6% of the placebo subjects met this criterion. Statistically significant differences were found for range of motion for the right and left shoulder in test vs. placebo subjects.

PAIN MANAGEMENT SPECIAL INTEREST GROUP BOARD LISTING

PRESIDENT

Joseph A. Kleinkort, PT, MA, PhD, CIE
303 Inverness
Trophy Club, Texas 76262-8724
PH: 817-491-2339 • FX: 972-887-0294
indusrehab@aol.com

VICE PRESIDENT

John E. Garziona, PT, AAPM
PO Box 451
Sherburne, NY 13460-0451
PH: 607-334-6273 • FX: 607-334-8770
jgarziona@juno.com

TREASURER

Scott Van Epps, PT, PCS
45 Wapping Ave
South Windsor, CT 06074-1345
PH: 860-545-8600 • FX: 860-545-8605
svanepps@cox.net

SECRETARY

Elaine Pomerantz, PT
20 Brookwood Road
South Orange, NJ 07079
PH: 973-575-1112 • FX: 973-575-1369
smokeyman@aol.com

NOMINATING CHAIR

Tom Watson, DPT, DAPPM

IT CHAIR

Sandy Pomeroy, PT

EDUCATION CHAIR

Marie Bement Hoeger, PT, PhD

The results of both clinical studies strongly support the use of the 635Nm low-level laser as a new possibility for single-use pain relief for patients with chronic pain in the neck or shoulder areas originating from the conditions of osteoarthritis, muscle spasms, and cervical and thoracic spine strain and improving range of motion. Other therapeutic applications also have been demonstrated.

PAIN

Guyton¹ explained that there are 2 leading causes of pain: muscle spasm and tissue ischemia. Muscle spasm is a common cause of pain and is the basis of many pain syndromes, resulting from the direct effect of muscle spasm in stimulating mechanosensitive pain receptors and from the indirect effect of muscle spasm compressing blood vessels and causing ischemia. A spasm increases the rate of metabolism in muscle tissue, making relative ischemia even greater, and creating ideal conditions for release of biochemical pain-inducing substances.

The suggested causes of pain in ischemia include accumulation of large amounts of lactic acid in the tissues, formed because of anaerobic metabolism, or other chemical agents such as bradykinin, proteolytic enzymes, and other chemical mediators formed in the tissues because of cell damage and that these, rather than lactic acid, stimulate the pain in nerve endings.

LOW-LEVEL LASER IN PAIN MANAGEMENT AND REHABILITATION

When ischemia or muscle spasm is reduced, pain can be reduced. When transmission is inhibited by tactile sensory signals, the degree of pain experienced also is reduced. All of these modalities have been accomplished using low-level laser energy. By applying laser energy to affected areas, the frequency of sensory nerve firing is increased, which subsequently increases the frequency of stimuli to the spinal cord, brain stem, and brain, in turn inhibiting pain at the spinal cord and brain stem levels.

When peripheral nerves are lasered, they send sensory information into the spinal cord, up the brain stem to the brain. Guyton explained that there are 3 major analgesic centers or areas for pain control: one is located in the spinal cord and the other two are located in the brain stem.

In addition to increasing stimuli to the spinal cord, brain stem, and brain, low-level laser treatment (LLLT) reduces inflammation caused by ischemia, excess lactic acid, and other muscle irritants. Elimination of muscle spasm and ischemia reduce pain.

Another key component in reducing pain is the engorgement of ATP at the myosin head in order to reset the muscle. When doing myotome testing, this may explain why the patient with a fair or good muscle function returns to normal within 1 to 2 minutes of laser stimulation at the nerve root and the muscle itself. In the rehabilitation process, this is a tremendous benefit which shortens the time to health quickly and efficaciously.²



By applying laser energy to affected areas, the frequency of sensory nerve firing is increased, which subsequently increases the frequency of stimuli to the spinal cord, brain stem, and brain, in turn inhibiting pain at the spinal cord and brain stem levels.



HISTORY, USES, AND BENEFITS

In a careful review of LLLT studies since the 1960s when low-level lasers were first used, Woodruff et al³ found the data revealed significant positive effects on wound healing in animal experiments as well as human clinical studies, significant positive effects on acceleration of the inflammation process, augmentation of collagen synthesis, increased tensile strength, reduced healing time, and diminution of wound size. That LLLT can be effective in pain reduction has also been demonstrated by Bjordal⁴ for reducing pain in chronic joint disorders, Gur and colleagues⁵ in reducing chronic back pain, and Kulekcioglu et al⁶ in reducing pain in temporomandibular disorders. Anders et al,⁷ Snyder and associates,⁸ and Medrado⁹ also have demonstrated that LLLT promoted nerve regeneration, enhanced healing, and reduced inflammation. Even in severe diabetic impairment of circulation, Schindl et al¹⁰ found "an increase in skin microcirculation due to athermic laser irradiation in patients with diabetic microangiopathy."

Simunovic¹¹ demonstrated pain relief and functional recovery of patients treated with LLLT in sport and traffic injuries. In clinical trials, Simunovic¹² also used LLLT on trigger points, myofascial zones of pain focal points, and found it effective for ameliorating headaches, facial pain, skeletal muscular ailments, myogenic neck pain, shoulder arm pain, epicondylitis humary, tenosynovitis, low back and radicular pain, and Achilles tendonitis.

Milojevic and Kuruc¹³ found that laser stimulation of acupuncture points in patients with bronchial asthma improved both lung function and gas exchange parameters and these benefits lasted several weeks to months. Naeser et al¹⁴ found that low-level laser therapy on acupuncture points of patients with carpal tunnel syndrome significantly reduced pain, and patients could afterwards perform their previous work (computer typist, handyman) and were stable for 1 to 3 years. Gur and colleagues¹⁵ found that laser therapy administered daily for 2 weeks was effective in decreasing pain, muscle spasm, morning stiffness, and total tender-point number in fibromyalgia. Sobetskii¹⁶ found that laser irradiation at acupuncture points was effective in treating in

stage I of hypertension. Carati et al¹⁷ found LLLT effective in postmastectomy lymphedema for reducing the extracellular fluid volume in the affected arm and tissue hardness in approximately 33% of patients at 3 months posttreatment. Brosseau and associates¹⁸ found LLLT effective for short-term pain relief and morning stiffness in rheumatoid arthritis, but conflicting results were found for osteoarthritis. Lutai et al¹⁹ found LLLT effective for rehabilitation of elderly patients with pneumonia. al-Awami²⁰ found LLLT to significantly lower the frequency and severity of Raynaud's attacks in patients with primary and secondary Raynaud's phenomenon.

CLINICAL PERSPECTIVE

I have enjoyed the use of lasers for almost 30 years. I am amazed that such a modality has had such a hard time catching on. There are over 2000 clinical papers on the use of low-level lasers and over 100 are double blinded. Woodruff et al⁵ did an excellent meta analysis of many of the articles proving its efficiency in many applications compared with laser studies that show conflicting results. One of the problems is that now we are seeing photo-stimulators come onto the scene, which are much slower in their response time than LLLT at 635 Nm. In my experience, many of the other low-level lasers that use different wavelengths seem to take a longer time to get results and are not as effective. I can't emphasize enough the importance of the 635 Nm wavelength and established frequency protocols† that have evolved over decades to get effective results!

CLINICAL APPLICATIONS

As a senior consultant to a large aeronautical company, I have seen almost every injury possible in my practice. I have found that 635 Nm LLLT to be most effective for the majority of injuries that we have seen. With LLLT, we have also reduced the treatment time to almost half and have been able to send most patients back to modified duty shortly after their injury, which further contributes to the reduction of Workman's Compensation costs. I use LLLT in combination with neuromuscular re-education of the myotomes, myofascial release, and therapeutic exercise. The LLLT works very much the same way, but is far superior to the icing and stroking modalities of the Rood techniques used years ago.

I have found LLLT to be one of the most important tools in the amelioration of chronic as well as acute pain and edema. When using proper protocols, most of the results are nothing short of miraculous. I would say that this should be the main tool used by therapists in their practice for most indications. Its use in the area of burns is remarkable. In a recent study by Dr Jeff Nelson presented to the ABA, he saw over 60% reduction of pain immediately and a 50% reduction in the time of healing on 60 patients. Its use in wound healing shows equally impressive results. With such effectiveness possible, it is unbelievable that we are so slow to change and embrace a technology that has been available for almost 30 years. Ockham's razor states, "What can be done with fewer is done in vain with more." It is time that we

turn our attention to change and learn that we can all "See the Light." It is ruby red and at 635 Nm.

REFERENCES

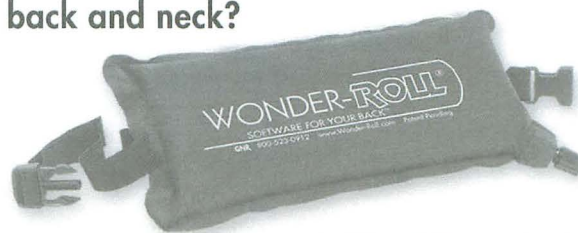
1. Guyton AC. *Basic Neuroscience, Anatomy and Physiology*. 2nd ed. Philadelphia, Pa: WB Saunders Co; 1991.
2. Kleinkort JA. The emerging paradigm of LLLT. *Orthopaedic Practice*. 2003;15:57-58.
3. Woodruff LD, Bounkeo JM, Brannon WM, et al. The efficacy of laser therapy in wound repair: a meta-analysis of the literature. *Photomed Laser Surg*. 2004;22(3):241-247.
4. Bjordal JM, Couppe C, Chow RT, Tuner J, Ljunggren EA. A systematic review of low level laser therapy with location-specific doses for pain from chronic joint disorders. *Aust J Physiother*. 2003;49(2):107-116.
5. Gur A, Karakoc M, Cevik R, Nas K, Sarac AJ, Karakoc M. Efficacy of low power laser therapy and exercise on pain and functions in chronic low back pain. *Lasers Surg Med*. 2003;32(3):233-238.
6. Kulekcioglu S, Sivrioglu K, Ozcan O, Parlak M. Effectiveness of low-level laser therapy in temporomandibular disorder. *Scand J Rheumatol*. 2003;32(2):114-118.
7. Anders JJ, Borke RC, Woolery SK, Van de Merwe WP. Low power laser irradiation alters the rate of regeneration of the rat facial nerve. *Lasers Surg Med*. 1993;13(1):72-82.
8. Snyder SK, Byrnes KR, Borke RC, Sanchez A, Anders JJ. Quantitation of calcitonin gene-related peptide mRNA and neuronal cell death in facial motor nuclei following axotomy and 633 nm low power laser treatment. *Lasers Surg Med*. 2002;31(3):216-222.
9. Medrado AR, Pugliese LS, Reis SR, Andrade ZA. Influence of low level laser therapy on wound healing and its biological action upon myofibroblasts. *Lasers Surg Med*. 2003;32(3):239-244.
10. Schindl A, Schindl M, Schon H, Knobler R, Havelec L, Schindl L. Low-intensity laser irradiation improves skin circulation in patients with diabetic microangiopathy. *Diabetes Care*. 1998;21(4):580-584.
11. Simunovic Z, Ivankovich AD, Depolo A. Wound healing of animal and human body sport and traffic accident injuries using low-level laser therapy treatment: a randomized clinical study of seventy-four patients with control group. *Clin Laser Med Surg*. 2000;18(2):67-73.
12. Simunovic Z. Low energy laser therapy with trigger points technique. *J Clin Laser Med Surg*. 1996;14(4):163-167.
13. Milojevic M, Kuruc V. Low power laser biostimulation in the treatment of bronchial asthma. *Med Pregl*. 2003;56(9-10):413-418.
14. Naeser MA, Hahn KA, Lieberman BE, Branco KF. Carpal tunnel syndrome pain treated with low-level laser and microamperes transcutaneous electric nerve stimulation: A controlled study. *Arch Phys Med Rehabil*. 2002;83(7):978-988.

15. Gur A, Karakoc M, Nas K, Cevik R, Sarac J, Demir E. Efficacy of low power laser therapy in fibromyalgia: a single-blind, placebo-controlled trial. *Lasers Med Sci.* 2002;17(1):57-61.
16. Sobetskii VV. [Laser-, ultraphono-, and acupuncture in complex treatment of patients with hypertension]. *Vopr Kurortol Fizioter Lech Fiz Kult.* 2003;2:7-10.
17. Carati CJ, Anderson SN, Gannon BJ, Piller NB. Treatment of postmastectomy lymphedema with low-level laser therapy: a double blind, placebo-controlled trial. *Cancer.* 2003;98(6):1114-1122.
18. Brosseau L, Welch V, Wells G, et al. Low level laser therapy for osteoarthritis and rheumatoid arthritis: a meta analysis. *J Rheumatol.* 2000;27(8):1961-1969.
19. Lutai AV, Egorova LA, Shutemova EA. [Laser therapy of elderly patients with pneumonia]. *Vopr Kurortol Fizioter Lech Fiz Kult.* 2001;3:15-18.
20. al-Awami M, Schillinger M, Maca T, Pollanz S, Minar E. Low level laser therapy for treatment of primary and secondary Raynaud's phenomenon. *Vasa.* 2004;33(1):25-29.

Joseph A. Kleinkort, MA, PhD, PT, CIE, DAAPM is Executive Vice President for WorkSTEPS, INC, 505 Inverness, Trophy Club, TX 76262 Ph: 817- 491-2559; Fax: 817-491-0070 (indusrehab@aol.com), Senior Rehab Consultant, Lockheed Martin, Ft Worth, TX, and he is a Visiting Professor for St Eustatius Medical School. President, Pain Management SIG, Orthopaedic Section.

LOWER BACK PAIN?

Are you experiencing discomfort or pain in the lower back or constantly slouching in your chair causing undo strain on your back and neck?



Wonder-Roll™ by GNR is a self-inflating back support that converts any chair into an ergonomically correct and impressively comfortable seat. The Wonder-Roll helps to counteract poor posture and maintain a proper lumbar curve while seated, thereby decreasing strain and relieving discomfort. It can be automatically adjusted to fit your individual shape, size and weight by simply leaning against the device, opening the valve to set the correct density, and closing the valve to maintain the pressure. For more information or to order yours, visit us at: www.Wonder-Roll.com

WONDER-ROLL® by **GNR**
SOFTWARE FOR YOUR BACK™



Invited candidates to Challenge for Fellowship in the Academy by Oral/Practical Examination

Letter of intent accepted now, with \$250 fee (due by June 7, 2005)

Portfolio due July 8, 2005 with \$400 fee

Portfolio review results sent to candidates March 2006

Examination October 2006 with \$600 fee

For information:

Contact: AAOMPT c/o Board of Examiners • 1705 South Gadsden St, Tallahassee, FL 32301
Phone: 850/222-0397 Fax: 850/222-0342 • Web: www.AAOMPT.org

All physical therapists are welcome to join AAOMPT as members.

The AAOMPT serves its members by promoting excellence in orthopaedic manual therapy practice, education and research, and collaborates with national and international associations.

Animal Physical Therapist

SPECIAL INTEREST GROUP

Orthopaedic Section, APTA, Inc.



ANIMAL PHYSICAL THERAPIST SPECIAL INTEREST GROUP DIRECTORY OF OFFICERS & CHAIRPERSONS

President

Deborah Gross Saunders, MSPT, OCS, CCRP™
PO Box 287
Colchester, CT 06415
Phone: 860-227-7865
Fax: 860-537-8705
E-mail: wizofpaws@aol.com

Vice President and International Liaison

Steve Strunk, PT
PO Box 691
Rockville, MD 20848-0691
Work: 301-424-9194
Fax: 301-962-7782
E-mail: stevestpt@earthlink.net

Treasurer

Sandy Brown, MSPT, CCRP™
1624 Prestwick Dr.
Lawrence, KS 66047
Phone and Fax: 785-749-9254
Email: sandyb@sunflower.com

Secretary

Susan Giegold
Email: sgiegold@earthlink.net

Public Relations Coordinator

(Newsletter, Logo, Brochure)
Becky Newton, MSPT
1710 SW 23rd Court
Cape Coral, FL 33991
Phone: 239-285-1824
Fax: 239-285-1824
Email: jbeckyn@yahoo.com

Committee on Practice

Caroline Adamson, MSPT, CCRP
Colorado Canine Sports Medicine/
Rehabilitation Clinic
Alameda East Veterinary Hospital
9870 E. Alameda Avenue
Denver, CO 80231
Work: 303-366-2639
FAX: 303-544-8150
E-mail: cadamson@aevh.com

Chair of Education

Ginamarie Epifano, PT
The Animal Rehabilitation and Fitness Center
918 Houndslake Dr.
Aiken, SC 29803
Phone: 803-649-4965
Fax: 803-649-3949
Email: k9rehabcenter@aol.com

Newsletter Coordinator

Becky Newton, MSPT
1710 SW 23rd Court
Cape Coral, FL 33991
Phone: 239-285-1824
Fax: 239-285-1824
Email: jbeckyn@yahoo.com

State Liaison Coordinator

Charles S. Evans, MPT, CCRP
26 Lamprey Lane
Lee, NH 03824-6552
Phone: 603-749-6686
E-mail: chazzevans@netscape.net

Nominations Committee

Amie Lamoreaux-Hesbach, MSPT, CCRP™
Mid-Atlantic Animal Specialty Hospital
4135 Old Town Road Suite B
PO Box 1168
Huntingtown MD 20639-1168
Phone: 410-414-8250
Email: amiept@yahoo.com

PTA Representative

Angela D. Frye-Lewelling, PTA
235 Douglas Dam Road
Kodak, Tennessee 37764
Work in human practice: (865) 429-6584
Work in animal practice: (865) 974-2993
E-mail: K9LPTA@aol.com

Orthopaedic Section Board Liaison

Joe Godges, DPT, MA, OCS

**SIG Coordinator and Off-Site
Continuing Education Coordinator**
Tara Fredrickson

Animal Physical Therapist Special Interest Group (APTSIG) Business Meeting

APTA CSM 2005 New Orleans, Louisiana

February 26, 2005

1. The meeting was called to order at 5:06pm by Steve Strunk, Vice-President.
2. Welcome.
3. Introduction of 2004 Officers and Committee Chairs
 - a. Deborah Gross Saunders – President (absent)
 - b. Steven Strunk – Vice-President
 - c. Sandy Brown – Treasurer (absent)
 - d. Becky Newton – Treasurer (absent)
 - e. Ginamarie Epifano – Education Committee Chairperson
 - f. Caroline Adamson – Practice Committee Chair (absent)
 - g. Charles Evans – State Liaison Coordinator (absent)
 - h. Angela Frye-Lewelling – PTA Representative (absent)
 - i. Amie Lamoreaux Hesbach – Nominating Committee Chairperson
 - j. Thank you to Becky Newton, our outgoing Secretary and Newsletter Coordinator. She has received an award from the SIG and Section for her years of service. Unfortunately, Becky was unable to attend CSM.
4. Introduction of new 2005 Officers and Committee Chairs
 - a. Cheryl Riegger-Krugh – Nominating Committee Member
 - b. Susan Giegold – Secretary (absent)
5. Introduction of Liaison/Advisor to the Orthopaedic Section Board of Directors
 - a. Robert Rowe
 - b. Lin McGonagle and Cheryl Riegger-Krugh, past SIG presidents, acknowledged the past Orthopaedic Section liaisons including: Gary Smith, Joe Godges, and Nancy White.
6. Old Business
 - a. Vice-President's Report
 - i. Orthopaedic Section/APTA communication: There was a meeting on Friday February 25, 2005 at CSM to discuss communications and the present and future role of the SIG with the Section and Association. The panel consisted of members of the Board of Directors from the APTA, Orthopaedic Section, and representatives from the SIG.
 - ii. Links to most state veterinary practice acts have been compiled. A request was made to include these links on the Section's web site to parallel the links to the state PT practice acts available on the APTA's web site.

THE ANIMAL PHYSICAL THERAPIST SPECIAL INTEREST GROUP (ANIMAL SIG) UPDATE

1. State Liaisons: To date there are 39 states that have Animal SIG Liaisons. Contact Charles Evans at chazzevans@netscape.net for more information.
2. The APTA has a web site that lists all of the State Practice Acts: www.apta.org/advocacy/state/state-practice.
3. If you would like to have your clinic listed on the Animal Physical Therapy SIG website, please contact Debbie Gross Saunders at WizofPaws@aol.com.

- iii. Membership: 447 members presently making us the third largest SIG in the Section and APTA (1,000+ interested nonmembers, including veterinarians, technicians, non-APTA members, and non-Section members).
- iv. Review of CSM 2004:
 - 1. Animal Assisted Activity and Animal Assisted Therapy were formally accepted in the APT SIG, as well as hippotherapy, and musculoskeletal injuries related to animal ownership. The scope included all aspects of working for or with animals, related to physical therapists and physical therapist assistants.
 - 2. Focus was changed to neuromusculoskeletal to be inclusive of neurological conditions of animals and humans receiving intervention with the use of animals.
 - 3. Cheryl Riegger-Krugh clarified that the present vision and mission of the SIG includes treatment of and work with all animals and their handlers/owners/trainers/etc. Refer to the CSM 2003 minutes.
- b. Committee/Officer Reports
 - i. Treasurer's Report: The SIG currently has approximately \$24,000 in unencumbered funds. The budget annually ranges from \$3000-5000.
 - ii. Education Report: Ginamarie Epifano, PT, Education Chair.
 - 1. Programming at CSM was well attended with over 75 people in attendance. Programming included: Canine Functional Outcome Assessment: Lin McGonagle, PT, MS, LVT, Genoa, NY; David Levine, PT, PhD, OCS, CCRP, Signal Mountain, TN; Amie Lamoreaux Hesbach, MSPT, CCRP, Port Republic, MD; Osteopathic Approach to Lumbopelvic Dysfunctions in Canines: Patricia M. Kortekaas, PT, Eugene, OR; and When Physical Therapy Goes to the Dogs: Incorporating Safe, Effective Animal-Assisted Programs: Teoti Anderson, CPDT (Certified Professional Dog Trainer), Lexington, SC.
 - 2. Continuing education is available in animal rehabilitation. There are two certificate programs (canine and equine) in the USA right now.
 - 3. There are master's level courses exclusively for PTs in the UK and Australia.
 - 4. The 3rd International Symposium on Rehabilitation and Physical Therapy in Veterinary Medicine was August 7-11, 2004 in Research Triangle Park, NC. There were over 300 attendees from 15 countries. The next symposium will be in the Netherlands in the summer of 2006.
 - 5. There will be programming at CSM 2006 in San Diego, CA. Gina invites ideas for speakers and/or topics for that meeting.
 - iii. Newsletter Report: Submissions for the next newsletter are due by March 4, 2005. Lin McGonagle has volunteered to do a book review for the next newsletter.
 - iv. State Liaison Coordinator Report:
 - 1. Steve remarked that Charles Evans has rejuvenated efforts in updating the state liaison system.
 - 2. APT SIG State liaisons have been successful in NV in moving legislation forward for the provision of Animal Physical Therapy (APT) by licensed physical therapists who have met certain qualifications.
 - 5. Other states are working on legislation recognizing PTs as providers of animal rehabilitation. These include Maryland, Missouri, Colorado, and Illinois.
 - v. Practice Committee Report: Amie Lamoreaux Hesbach for Caroline Adamson
 - 1. Malpractice/liability insurance availability was discussed. Currently policies are available from The Hartford, Zurich, and Travelers.
 - 2. Pet insurances have been contacted by members of the SIG Board concerning coverage of animal rehabilitation services by physical therapists and physical therapist assistants. The next step is to promote coverage of these services by educating these organizations as to the research and education involved in the provision of animal rehabilitation.
 - vi. Nominating Committee Report: Amie Lamoreaux Hesbach
 - 1. Congratulations to Susan Giegold, our new Secretary, and Cheryl Riegger-Krugh, our Nominating Committee Member
 - 2. Nominations are open for President, Treasurer, and Nominating Committee Chairperson.
 - 3. Elections will become mostly electronic, with ballots mailed only to members who do not have email addresses, per Steve, on report from the Section business meeting.
- 7. New Business
 - a. Goals
 - i. Improved communication with Section, SIG Members, APTA.
 - ii. Update malpractice insurance information.
 - iii. Review of the literature for evidence-based practice.
 - 1. Cheryl suggested that literature reviews could be conducted and posted online and in the newsletter.
 - 2. Cheryl also suggested that we promote a "Hooked on Evidence" feature regularly in the newsletter or on the web.
 - iv. Strategic planning to update the APT SIG's mission, vision, and goals.
 - 1. The present plan is to schedule strategic planning at the June meeting in Boston.
 - 2. Steve mentioned the possibility of doing a Practice Analysis as well. Robert Rowe corroborated that this would be a "good time" to do such a study, including practice guidelines, competencies, core values, and standards of practice.
 - v. Update pet insurance information.
 - vi. Liaison to the AVMA.
 - 1. Amie mentioned that this seems to be of interest in/with the AVMA also. The membership is encouraged to discuss this possibility with veterinarians as it is their organization. This might move forward more quickly if it starts with a "grassroots" approach.
 - vii. Compile and report survey results.
 - viii. History of the SIG.
 - b. Call for nominations
 - i. Steve nominated Amie for President. This nomination was seconded by Ginamarie. Amie has accepted the nomination.
 - ii. Nominations are open until at least summer 2005.

8. Open Forum
 - a. "Find a PT" is a feature on the APTA website. Amie encouraged all SIG members to utilize this service. A brief "how to" article will appear in the next newsletter.
 - b. Ginamarie and Lin suggested that state liaisons be "charged" with assignments to assist the SIG leadership, for example, to research pet insurances, malpractice insurance, etc. Members in attendance were concerned that they were not aware of who their liaisons were and how to contact them.
 - c. Cheryl expressed some concern that the SIG website is not up to date. There was a suggestion that state liaison information be posted there as well. The CSM minutes should be there too.
 - d. The new member "welcome packet" is not being utilized. Brochures explaining the SIG's mission, vision, and goals should be produced as well.
 - e. The newsletter is in dire need of submissions. There will be a short article on how to get involved, contact your state liaison, etc. in the next newsletter.
 - f. There was concern expressed about the SIG's name and that it does not include PTAs.
 - g. A motion was made: Motion 1: "I move that the Board assign a Task Force to examine the SIG's name and suggest more appropriate names." Motion by Ellen O'Keefe. Second by Amie. Discussion focused on the involvement of PTAs in animal rehabilitation and PTs/PTAs in AAT/AAA. The motion passed.
Motion 2: "I move that the Board examine the existing structure of committees and chairs." Motion by Lin. Second by Cheryl. Discussion focused on the involvement of PTs/PTAs in AAT/AAA who are members of the SIG and who might not feel represented by the SIG. The motion passed.
9. The meeting was adjourned at 6:15pm.

FIND A PT: AN ONLINE MARKETING RESOURCE FOR APTA MEMBERS

<http://apta.org/Consumer/findapt>

Submitted by Amie Lamoreaux Hebach, MSPT, CCRP

As a small business owner, I'm always looking for ways to market my business, especially those methods that are inexpensive and far-reaching. So imagine my pleasant surprise when I discovered "Find A PT" on the APTA website. It's a resource for consumers that allows the public to search for a PT by location and area of expertise. It takes just minutes to complete your profile. I was even able to list a description of my practice in small animal rehabilitation, my education, and my practice contact information. There are links to my website and to Mapquest for driving directions to our clinic. What a wonderful resource—and best of all, it's free (with your APTA dues)!

REPORT ON THE JOINT MEETING OF REPRESENTATIVES OF THE AMERICAN PHYSICAL THERAPY ASSOCIATION BOARD OF DIRECTORS, THE ORTHOPAEDIC SECTION, AND THE ANIMAL PHYSICAL THERAPIST SPECIAL INTEREST GROUP

Representatives of the American Physical Therapy Association (APTA) Board of Directors, the Orthopaedic Section (Section) and the Animal Physical Therapist Special Interest Group (SIG) met during Combined Sections Meeting in New Orleans on February 24, 2005.

- The APTA clarified that the purpose of the meeting was to discuss the issue of physical therapists treating animals and to identify the barriers and opportunities in this arena of practice. Concerns about disbanding the SIG were dispelled and the SIG expressed their continued interest in staying in the Section. The Section also expressed its interests in housing the SIG.
- The SIG started in 1998 and started the process of developing competencies in 2003, which they are still in the process of finalizing. They consider the treatment of animals to be advanced practice and best done in collaboration with a veterinarian.
- The SIG has developed numerous educational resources related to anatomy and other areas that are available for their members, including home study courses.
- Much discussion occurred regarding the legal requirements to practice. It appears that only one state explicitly allows physical therapists to treat animals (New Mexico). The SIG has identified the legal requirements in each state through its state liaison network and provides this information to members when it is requested. Currently, 16 states have the word "human" explicitly in their practice act. It was suggested by the SIG that the typical evolution when a new area of practice develops is to move from practice into education and then into state law. This model of development is arguable in its application to animals because practice cannot take place if it is illegal, and much of animal rehabilitation has taken place in jurisdictions where the law is not clear. Several examples such as TMJ and manipulation were provided by the SIG, but APTA noted that the difference between these examples and animal rehabilitation is that the other areas developed on humans and new knowledge is now being developed and acquired on a different species, and could not be practiced where explicitly illegal. The difference in anatomy between humans and animals was also discussed and the SIG offered the opinion that the differences are not great for a physical therapist to learn.
- One significant challenge is that veterinarians do not recognize other health providers as colleagues – it is just the veterinarian and his/her staff. Although APTA considers the president of the Association as the liaison to the American Veterinary Medicine Association (AVMA), the relationship has been inactive since the AVMA declined to meet with the APTA several years ago. The SIG indicated that there is new leadership in the AVMA and the time may be right to pursue a more active liaison relationship.
- Another critical issue is to determine what to call the treatment of animals ie, referred to as "animal rehabilitation" or "animal physical therapy" or "animal _____." Much concern was expressed by the SIG that the term "animal physical therapy" not be appropriated by non-physical therapists because we have spent substantial resources on promoting the concept that "physical therapy" refers to services provided only by or under the direction of physical therapists. There was agreement that "physical therapy" should refer only to the services of physical therapists whether human or animal. However, it was also recommended that we consider a generic term that is not specific to physical therapy may be preferable until some of the legal issues are clarified.
- Developing a strategic plan was suggested by the Section as essential to guide the progression of the SIG. The SIG responded positively to this suggestion.

- The APTA emphasized that future developments of practice with animals must be consistent with current HOD and Association policies/positions/guidelines and the Vision of autonomous practice.
- The SIG requested that the APTA BOD reconsider V-44 passed at the November 2004 BOD as they feel it is premature and they would like more time to demonstrate the progress they have made.
- The Section suggested that the SIG might use the experience of the American Academy of Orthopaedic Manual Physical Therapy (AAOMPT) as a resource for competency identification and consider AAOMPT's process of curriculum development as a model for developing competency-based curricula for the evaluation and treatment of animals.
- The SIG should develop relationships and identify champions within the AVMA and the veterinarian community.

The APTA Board of Directors met on March 10-12, 2005 in Alexandria and took up these issues during their deliberations. The Board voted to rescind V-44. The Board of Directors also adopted the following position:

The American Physical Therapy Association acknowledges the collaborative relationships of physical therapists and veterinarians and the evolution of specialized practice by physical therapists in animal rehabilitation. Consistent with the Mission Statement Fulfillment Policy (HOD 06-93-06-07) adopted by the House of Delegates to enable physical therapists to improve their knowledge and skills in the interest of furthering the profession, the practice of animal rehabilitation by physical therapists is permissible where allowed by law and regulation.

ATTENDEES:

APTA Board of Directors

Janet Bezner, PT, PhD
 Stephen Levine, PT, DPT, MSHA
 Stephen McDavitt, PT, MS, FAAOMPT

Orthopaedic Section

Michael Cibulka, PT, MHS, OCS, Section President
 G. Kelly Fitzgerald, PT, PhD, Section Research Committee Chair
 Robert Rowe, PT, Section Practice Committee Chair
 Terri DeFlorian, Section Executive Director
 Tara Fredrickson, Section Executive Associate

Animal PT SIG

Steven Strunk, PT, SIG Vice President
 Lin McGonagle, PT, SIG Founding President
 Jan Richardson, PT, PhD, OCS, SIG member

APTA Staff

Andrew Guccione, PT, DPT, PhD, FAPTA, CAE, Senior Vice President, Practice and Research

OPEN POSITIONS

The Animal PT SIG is currently seeking nominations for the following positions: President, Treasurer, and Nominating Committee Member. Duties and responsibilities of the elected officers are listed below. Additional information on the positions may be obtained by going to the Orthopaedic Section website and looking at the duties per Bylaws. We are also currently seeking someone to take over the responsibility of newsletter coordinator. In addition, we are looking for dedicated persons to fill the roles of state liaisons. If you are inter-

ested in becoming a state liaison, please contact Charlie Evans. And if you are interested in any of the other positions, please contact Amie Hesbach prior to May 1.

President

1. The President serves as the official head of the and public spokesperson for the SIG.
2. The President is an ex-officio member of all committees except the Nominating Committee.
3. The President directs SIG-related correspondence to appropriate individuals within the SIG.
4. The President sends copies of appropriate SIG-related correspondence to the Executive Associate at the Section Office.
5. The President compiles agendas for all meetings.
6. The President provides for the orientation of new officers and chairs.
7. The President attends the following meetings: SIG Executive Board Meetings and conferences calls, SIG Annual Business Meetings, CSM Sections Annual Membership Meeting.
8. The President attends APTA meetings in which the President's presence is required to represent the SIG.
9. The President extracts relevant information from the minutes of the Section and APTA meetings and distributes them to the appropriate members.
10. The President responds to requests received from the APTA and its components, sharing information with the executive board as indicated.

Treasurer

1. The Treasurer assumes responsibility for submitting the SIG budget to the Section. The Executive secretary will send a budget template via email around the first of April.
2. The Treasurer assumes responsibility for the receipt, disbursement, and accurate recording of the SIG funds.
3. The Treasurer presents a written financial report at the Annual Business Meeting and at Executive Board Meetings.
4. The Treasurer serves as a liaison to the Section Treasurer and Finance Committee.
5. The Treasurer distributes quarterly budget reports to the SIG Executive Board via the Section office.
6. The Treasurer attends the following meetings: SIG Executive Board meetings and conference calls, SIG Annual Business Meeting.
7. The Treasurer forwards copies of official correspondence to the President and to the Section's Executive Associate.
8. The Treasurer maintains a file of annual and quarterly budget reports for use in assisting the President in the orientation of the successor to the office of Treasurer.

Nominating Committee

1. Keeps track of the offices for which elections will be held.
2. Notifies the President of the offices for which elections will be held the following year.
3. Recruits people for the offices for which elections will be held the following year.
4. Submits notices of the offices for which elections will be held the following year to the newsletter in *Orthopaedic Physical Therapy Practice*.
5. Presides over the elections at the Annual Business meeting at CSM.
6. Contributes to the newsletter.
7. Produces reports when requested by the President.

RehabShopper.com

- Quantity Discounts
- Great Service
- Low Prices

Orthopedic Soft Goods
Wound Care Supplies
Taping Supplies
Clinic Supplies
Test & Evaluation
Education & Occupational Health
Electrotherapy
Hydrotherapy
Hot & Cold Therapy
Compression Therapy
Massage Therapy
Pain Management
Exercise Products
Fitness Equipment
Aqua Therapy
Traction & Positioning
Treatment Tables/Furniture
Aids to Daily Living

GNR's ONLINE WHOLESALE CATALOG
Offering over 3000 quality products

www.RehabShopper.com

Revolutionary Breakthrough Technology

**Guaranteed to Help You
Become the Best Practitioner
in Your Town**

Are you tired of any/all of the
following?

Mobilizing joints only to feel them
become restricted again
Releasing fascia only to feel it
become tight again
Relaxing muscles only to feel them
become tense again
Increasing R.O.M. only to have it
become decreased again

End the frustrating cycle of your
treatment not "holding"

Be the first to offer this practice
changing technology in your town

Request your copy of: **When
Protective Reflexes Become
Overly Protective**

Free to the first 100 practitioners...
so don't delay. Call today!

800.945.5865

Bonus: Call within 24 hours and request
the Free article: *How Tomatoes, Potatoes,
Peppers, Eggplant Can Trigger Swelling
& Inflammation*

Earn a degree while you earn a living.

At the nationally ranked Krannert School of Physical Therapy,
you can earn a postprofessional degree while working full-time,
and enjoy such features as:

- Weekend courses
- Web-based & Web-enhanced instruction
- Credit available for prior learning
- Individualized programs of study

Areas of clinical emphasis are:

- Orthopedic physical therapy
- Adult neurologic physical therapy
- Pediatric physical therapy
- Geriatric physical therapy

Visit our Web page at <http://pt.uiindy.edu> to view our schedule and
course descriptions. For more information, contact Jill Stikeleather at
stikeleather@uiindy.edu or (317) 788-3502/1-800-232-8634.

UNIVERSITY of
INDIANAPOLIS

Krannert School of Physical Therapy

Postprofessional
Degrees in PT:

MS, MHS, DHS, DPT (transitional)

UNIVERSITY OF ST. AUGUSTINE

FOR HEALTH SCIENCES

Manual Therapy and Orthopaedic Seminars 2005 Seminar Calendar

CONTINUING EDUCATION SEMINARS



Stanley V. Paris, PT, PhD, FAPTA
President

Register Online at
www.usa.edu or
Call today at
1-800-241-1027!

S1 - Introduction to Spinal Evaluation & Manipulation
40 Hours, 4.0 CEUs (No Prerequisite)
\$825

Las Vegas, NVYackApr 20 - 24
Ft. Lauderdale, FLVitiApr 20 - 24
*Atlanta, GASmithMay 1 - 5
Harrisburg, PAVitiMay 11 - 15
New York City, NYYackMay 11 - 15
San Francisco, CAYackJun 8 - 12
St. Augustine, FLParis/VitiJun 22 - 26
Boston, MASmithJun 23 - 27
Detroit, MIVitiJul 13 - 17
Columbus, OHLonnemanAug 10 - 14
Ft. Myers, FLVitiAug 10 - 14
Minneapolis, MNYackAug 11 - 15
Honolulu, HIVitiSep 21 - 25
St. Augustine, FLParis/VitiOct 5 - 9
Oak Ridge, TNVitiNov 2 - 6
Baltimore, MDSmithNov 11 - 15
Phoenix, AZYackNov 16 - 20
Houston, TXYackDec 7 - 11

E1 - Extremity Evaluation and Manipulation
36 Hours, 3.6 CEUs (No Prerequisite)
\$695

Detroit, MIFoxApr 14 - 17
Baltimore, MDBusbyMay 5 - 8
St. Augustine, FLFoxMay 12 - 15
Honolulu, HITurnerMay 19 - 22
Atlanta, GABusbyJun 9 - 12
Denver, COTurnerJun 9 - 12
New Orleans, LAFoxJul 7 - 10
Sarasota, FLBusbyJul 7 - 10
Phoenix, AZTurnerAug 4 - 7
Boston, MABusbyAug 18 - 21
St. Augustine, FLPatla/FoxSep 22 - 25
Los Angeles, CATurnerOct 20 - 23
Harrisburg, PAFoxOct 20 - 23
Cincinnati, OHFoxNov 10 - 13
Dallas, TXTurnerDec 8 - 11

The Pediatric Client with a Neurological Impairment
32 Hours, 3.2 CEUs (No Prerequisite)
\$625

Atlanta, GADeckerMay 19 - 22
St. Augustine, FLDeckerOct 20 - 23

Motor Control & Motor Learning
23 Hours, 2.3 CEUs (No Prerequisite)
\$545

St. Augustine, FLLoweSep 16 - 18

Basic Cranio-Facial
20 Hours, 2.0 CEUs (No Prerequisite)
\$525

Reykjavik, IcelandRocabadoNov 30 - Dec 2

Intermediate Cranio-Facial
20 Hours, 2.0 CEUs (Prerequisite Basic Cranio Facial available Online)
\$525

*LaJolla, CARocabadoSep 11 - 13

S2 - Advanced Evaluation & Manipulation of Pelvis, Lumbar & Thoracic Spine
27 Hours, 2.7 CEUs (Prerequisite S1)
\$545

Boston, MAIrwinApr 15 - 17
Denver, COYackApr 29 - May 1
St. Augustine, FLIrwinMay 6 - 8
Ft. Myers, FLIrwinJun 17 - 19
Chicago, ILYackJul 22 - 24
Ft. Lauderdale, FLIrwinJul 29 - 31
Houston, TXIrwinAug 12 - 14
Milwaukee, WIYackAug 26 - 28
St. Augustine, FLIrwinSep 9 - 11
New York City, NYYackSep 30 - Oct 2
Sarasota, FLYackNov 11 - 13
New Orleans, LAYackDec 16 - 18

MF1 - Myofascial Manipulation
24 Hours, 2.4 CEUs (No Prerequisite)
\$545

St. Augustine, FLCantuApr 15 - 17
LaJolla, CAStanboroughApr 15 - 17
Asheville, NCStanboroughMay 20 - 22
St. Augustine, FLStanboroughJul 22 - 24
Dallas, TXCantuJul 22 - 24
Atlanta, GACantuAug 5 - 7
Ft. Lauderdale, FLGrodinAug 5 - 7
New York City, NYGrodinOct 7 - 9
Las Vegas, NVStanboroughOct 7 - 9
Denver, COStanboroughOct 21 - 23
Chicago, ILCantuNov 11 - 13

E2 - Extremity Integration
24 Hours, 2.4 CEUs (Prerequisite E1)
\$545

Troy, NYVarelaApr 22 - 24
Ft. Lauderdale, FLVarelaJun 3 - 5
New York, NYPatlaJun 24 - 25
Washington, DCPatlaJul 22 - 24
St. Augustine, FLPatlaJul 29 - 31
Flint, MIVarelaJul 29 - 31
Denver, COVarelaAug 12 - 14
Sarasota, FLVarelaSep 16 - 18
Chicago, ILVarelaOct 7 - 9
St. Augustine, FLPatlaOct 7 - 9
Boston, MAPatlaNov 18 - 20
LaJolla, CAPatlaDec 2 - 4

S3 - Advanced Evaluation & Manipulation of the Cranio Facial, Cervical & Upper Thoracic Spine
32 Hours, 3.2 CEUs (Prerequisite S1)
\$750

Baltimore, MDSmithJun 16 - 19
St. Augustine, FLParis/RotJun 16 - 19
Las Vegas, NVRotJul 7 - 10
New York, NYRotJul 21 - 24
Charlotte, NCSmithAug 13 - 16
Boston, MASmithSep 15 - 18
Chicago, ILRotSep 15 - 18
Atlanta, GASmithOct 7 - 10
St. Augustine, FLParis/RotOct 13 - 16
Los Angeles, CARotOct 20 - 23
Bayshore, NYRotNov 3 - 6

S4 - Functional Analysis & Management of Lumbo-Pelvic-Hip Complex
16 Hours, 1.6 CEUs (Prerequisite S1)
\$495

St. Augustine, FLNybergApr 23 - 24
Lexington, KYNybergMay 14 - 15
Baltimore, MDVarelaMay 21 - 22
Troy, NYNybergJun 18 - 19
Indianapolis, INVarelaJul 9 - 10
LaJolla, CANybergAug 13 - 14
Detroit, MIVarelaSep 10 - 11
New York, NYNybergSep 10 - 11
Ft. Lauderdale, FLVarelaOct 15 - 16
St. Augustine, FLNybergNov 19 - 20
Chicago, ILVarelaDec 3 - 4
Atlanta, GANybergDec 10 - 11

CERTIFICATION WEEK Preparation and Examination
36 Hours, 3.2 CEUs
(Prerequisites for each Certification vary)
\$925

St. Augustine, FLSep 26 - Oct 1
St. Augustine, FLOct 24 - 29

Advanced Cranio-Facial
20 Hours, 2.0 CEUs (Prerequisite Intermediate Cranio Facial)
\$525

St. Augustine, FLRocabadoApr 13 - 15
LaJolla, CARocabadoSep 14 - 16
Reykjavik, IcelandRocabadoNov 28 - 30

University of St. Augustine
For Health Sciences
1 University Boulevard
St. Augustine, FL 32086-5783
Registration: 800-241-1027
FAX: 904-826-0085

Name: _____

Address: _____ PT

City: _____

State: _____ Zip: _____

Email: _____

Home: (____) _____ - _____

Work: (____) _____ - _____

FAX: (____) _____ - _____

Please register me for:

Seminars: _____

Locations: _____

Dates: _____

Prerequisite information:

Seminar: _____

Location/Date: _____

Is this your first seminar with the University? Yes _____ No _____

A \$50 non-refundable deposit must accompany registration form. A 50% non-refundable, non-transferable deposit is required for Certification. Balance is due 30 days prior to start date of the seminar. Balance can be transferred or refunded with 2 week written notice. Notice received after that time subject to only 50% refund. No refunds or transfers will be issued after the seminar begins.

METHOD OF PAYMENT

_____ Check or Money Order enclosed

Please make payable to: University of St. Augustine

Charge my:

Card # _____

Exp. date: ____/____/____

Amount: \$ _____

Signature: _____

Team Discount - Two or more persons from the same facility registering for the same seminar at the same time, receive a 10% discount at the time of registration.

(Advanced notice and full payment required, does not apply after the first day of a seminar.)

Multiple Seminar Discount - Register and pay in full for two or more seminars at the same time and receive a 10% discount.

(May not be combined with any other discounts or previous registrations.)

Ortho 4-05

Advance Your Opportunities by Investing in Your Education Earn Your Transitional DPT

BSPT to DPT 30 Credits
MPT to DPT 22 Credits

- Convenient Distance Education Format with Online Courses
- Can Earn a Certification and a DPT Degree
- Clinically Relevant

Call 800/241-1027 or Visit our website www.usa.edu

*Specifically designed to respect the Sabbath.

Seminar dates, locations, and tuition are subject to change, please call before making any non-refundable reservations.

Europe's Leading Laser and LED Therapy Systems Now Available in the USA...

KEEP YOUR PRACTICE ON THE LEADING EDGE



Want to increase referrals, improve quality of care, and keep your practice on the leading edge of modern rehabilitation?

You need to test-drive a state-of-the-art Laser System direct from Europe's leading manufacturer, THOR International. THOR's value package includes a portable laser system, carry bag, probes, safety glasses and hands-on training from an experienced technician.

**Call Meg or Melyni at
540-942-4500**

or Email Melyni@thorlaser.com
or go to www.thorlaser.com and sign up online

Cost: \$150 CEU's - Seats are limited!



THOR'S ADVANCED LASER THERAPY WORKSHOP



Join other clinicians in your area for a stimulating one-day workshop on this exciting new modality. Informative slide shows & videos will be shown along with practical hands-on training. Learn from the experts! No experience necessary.

Decide which best suits your schedule and call 866-251-7743 to book your seat.

April 9	Philadelphia, PA
April 23	Dallas, TX
May 7	Seattle, WA
May 7	Baltimore, MD
May 20-22	Ft. Lauderdale, FL
June 4	Kansas City, KS
June 11	Denver, CO
July 9	Minneapolis, MN

Your BEST source for IONTOPHORESIS SOLUTIONS

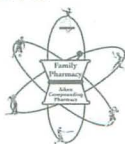
- (Needle-less container, Preservative-free)
- Dexamethasone 0.4% for inflammation
 - Ketoprofen 10% for chronic inflammation
 - Acetic Acid 4% for calcification
 - Potassium Iodide 10% for adhesions

and PHONOPHORESIS GELS

- (Micronized particles, Viscosity adjusted)
- Ultrasound Gels
- Hydrocortisone 10%
 - Ketoprofen 10%
 - Dexamethasone 0.4%

**FREE Ground Shipping
PROMPT Professional Service
Innovative Products**

Aiken Compounding Pharmacy
1123 Banks Mill Rd.
Aiken, SC 29803
www.dexrx.com



Call us Toll Free 866-649-1313
for recommendations, protocols, & orders

Kaiser Permanente - Hayward Physical Therapy Fellowship in Advanced Orthopedic Manual Therapy

3-month Clinical Mentorship 6-month Advanced Clinical Fellowship

- Study with the most experienced residency faculty in the United States.

Ask about our new ...

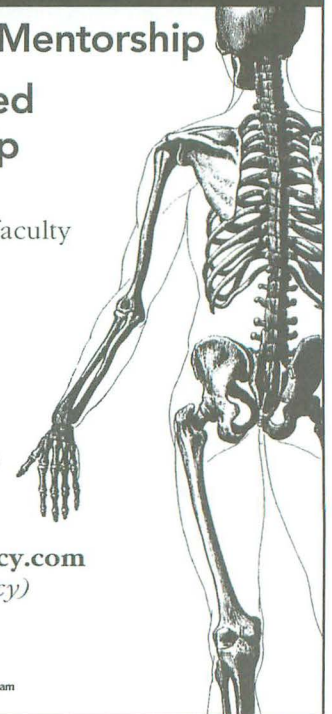
- Reduced Tuition
- Increased Stipends
- Scholarships

*San Francisco Bay Area
Contact us at:
(510) 675-4259*

kaiserhaywardptresidency.com
(Formerly PT Residency)



American Physical Therapy Association
Credentialed Postprofessional Clinical Fellowship Program



UW^{Health}

MERITER

**Orthopaedic Physical Therapy Residency
Madison, Wisconsin**

**12 month, full time position
salary & benefits**

- Patient centered learning approach.
- 1:1 mentoring with clinical faculty.
- Emphasis on examination, clinical reasoning, & manual therapy skills.
- Critical analysis of practice procedures and scientific literature.

Strive toward excellence

For information contact:
Kathryn Lyons, MS, PT, OCS, Program Director
km.lyons@hosp.wisc.edu (608) 265-8371



American Physical Therapy Association
Credentialed Postprofessional Clinical Residency Program

PTJobs.com

dedicated to physical therapy

**Spending too much time
and money recruiting PT's?**

GET 25% OFF

ALL SERVICES UNTIL MAY 31, 2005

USE COUPON CODE: ORTHO2005

- **Low Prices!** Our job posts cost a small fraction of print ads and it's always free for Job Seekers!
- **Time Saving Options!** It takes an average of three minutes to post a job and show up in our search engine. Results can be instantaneous!
- **User friendly design and helpful customer service make recruiting almost fun.** Our team is constantly improving the site based on feedback we receive from insightful customers just like you.

www.PTJobs.com

Call us at 1-866-PTJobs1

Orthopaedic Physical Therapy Practice Instructions to Authors

Christopher Hughes, PT, PhD, OCS, Editor
Sharon L. Klinski, Managing Editor

1. *Orthopaedic Physical Therapy Practice (OPTP)* will publish articles pertaining to clinical practice. Articles describing treatment techniques as well as case studies and reviews of literature are acceptable. Language and format of articles should be consistent with the *Guide to Physical Therapist Practice*.
2. Manuscripts should be reports of personal experiences and written as such. Though suggested reading lists are welcomed, references should otherwise be kept to a minimum with the exception of reviews of literature.
3. Manuscript Preparation Guidelines
(details can be found at www.orthopt.org)
4. Manuscripts are accepted by mail or electronically. Save your monograph to a 3 1/2" IBM-compatible computer disk

in Microsoft Word or plain text format. Provide 2 hard copies of the monograph. Protect any original photographs and artwork for shipment. The manuscript should be sent to:

Orthopaedic Physical Therapy Practice

ATTN: Managing Editor
2920 East Avenue South, Suite 200
La Crosse, WI 54601-7202
Tel: 800.444.3982 ext 202
FAX: 608.788.3965
Email: Sharon Klinski, Managing Editor at
sklinski@orthopt.org and

Christopher Hughes, Editor at cjh@nauticom.net

Index to Advertisers

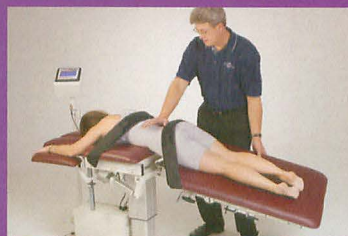
AAOMPT	28	Phoenix, Inc.	42
Ph: 828/227-2126		Ph: 406/549-8371	
twatson@wcu.edu		FAX: 406/721-6195	
AAOMPT	51	The Prometheus Group	31
Ph: 850/222-0297		Ph: 603/749-0733	
FAX: 850/222-0342		Fax: 603/749-0511	
www.AAOMPT.org		www.theprogrp.com	
Academy of Lymphatic Studies	2	PTJobs.com	59
Ph: 800/863-5935		Ph: 866/785-6271	
Email: academy@acols.com		www.PTJobs.com	
www.acols.com		Quality Health Products	38
Aiken Compounding Pharmacy	58	Ph: 800/834-7058	
Ph: 866/649-1313		Rocky Mountain University	34
FAX: 803/649-9494		Ph: 801/375-5125	
Cardon Rehabilitation Products Inc.	Inside Front Cover	Fax: 801/375-2125	
Ph: 800/944-7868		www.rmuohp.edu	
Fax: 716/297-0411		The Saunders Group, Inc.	Inside Back Cover
Carolyn McManus, PT	34	Ph: 800/966-4305	
Ph: 206/329-7627		Fax: 952/368-9249	
FAX: 206/386-2999		www.3DactiveTrac.com	
Email: camcmanus@earthlink.net		Serola Biomechanics	Outside Back Cover
DogLeggs	38	Ph: 815/636-2780	
Ph: 800/313-1218		Fax: 815/636-2781	
Fax: 703/391-9333		www.serola.net	
ErgoScience, Inc.	21	Solaris, Inc.	1
Ph: 866/779-6447		Ph: 262/821-6113	
FAX: 205/879-3301		FAX: 262/821-6263	
Evidence in Motion, LLC	15	SmartCare PT	11
Ph: 210/364-7410		Ph: 207/562-8048	
FAX: 210/579-2637		www.smartcarept.com	
www.evidenceinmotion.com		Specht Orthopedics	2
Glacier Cross	30	Ph: 877/477-3248	
Ph: 800/328-2536		SuperSpine Inc.	56
GNR/RehabShopper.com	56	Ph: 800/945-5865	
Ph: 866/967-3422		Fax: 858/676-2509	
www.RehabShopper.com		Email: reflexrelease@cox.net	
Kaiser Permanente	58	Therapy Zone	14
Ph: 510/675-4259		Ph: 305/871-9955	
Fax: 510/675-3241		Fax: 303/871-9950	
www.kaiserhaywardptresidency.com		Thor Laser Inc.	58
Norton School of Lymphatic Therapy	37	Ph: 866/251-7743	
Ph: 866/445-9674		E-Mail: usasales@thorlaser.com	
E-Mail: info@nortonschool.com		www.thorlaser.com	
www.nortonschool.com		University of Indianapolis	56
OPTP	37	Ph: 317/788-4909	
Ph: 763/553-0452		Fax: 317/788-3542	
Fax: 763/553-9355		Email: stikeleather@uindy.edu	
www.optp.com		University of St. Augustine	57
OrthoVet Splints	38	Ph: 800/241-1027	
Ph: 541/544-2435		www.usa.edu	
Fax: 541/544-2426		UW Hospitals & Clinics	59
www.orthovet.com		Ph: 608/265-8371	
Pain & Rehabilitation Medicine	10	Fax: 608/263-6574	
Ph: 301/656-0220		Email: km.lyons@hosp.wisc.edu	
Fax: 301/654-0333		Wonder-Roll	51
Email: Mahan@painpoints.com		Ph: 800/523-0912	
		www.Wonder-Roll.com	

The Most Versatile Traction System Available

- Effectively treat a wide range of musculoskeletal disorders, even those that are impossible to treat with conventional traction tables.
- Reduce the physical stress and strain on the clinician.
- Designed by one of the foremost experts in traction therapy*
*FREE attendance at Duane Saunders' *Evaluation, Treatment & Prevention of Spinal Disorders* seminar.
- Flexible leasing options and possible tax benefits available.



3D ACTIVE TRAC®



Discover how the 3D ActiveTrac can give you the widest range of therapeutic treatment options.

"One thing we love about the table is that you can use it on everyone, whatever condition they are in. You can adapt the table to the patient and work from there. We are seeing immediate results with a lot of patients."

— Christie Anderson, PT

1-800-779-0670
www.3DActiveTrac.com





SEROLA

BIOMECHANICS

SACROTRAC

Small wedge furthers flexion of sacrum

Reduces

- facet jamming
- disc compression
- lumbo-sacral angle



Large wedge places hips into flexion

Mobilizes L4-S1

SACROILIAC BELT

Thin cotton webbing

- provides stop point to limit excess motion
- invisible under most clothing
- increases patient compliance

Non-slip mesh

- safe, durable
- prevents ride-up
- allows air flow



Extra-strong double-pull elastic

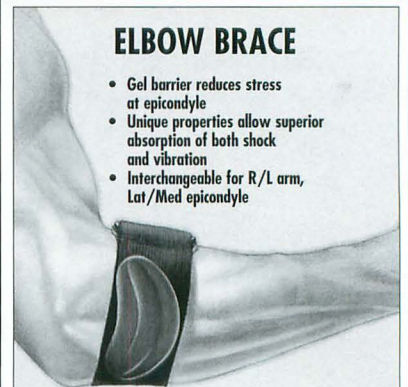
- provides compression and resilience
- woven rather than knitted
- more durable
- heavier gauge rubber
- tighter weave
- much stronger
- lasts much longer

Hook and Loop Closures

- no buckles to pinch or irritate
- allows proper application tension
- will not tighten too much
- easy peel off
- superior shear strength

ELBOW BRACE

- Gel barrier reduces stress at epicondyle
- Unique properties allow superior absorption of both shock and vibration
- Interchangeable for R/L arm, Lat/Med epicondyle



- Flat side for diffuse pressure - bar side for specific pressure
- Foam pad at buckle for comfort
- One size fits all

SEROLA.NET
800.624.0008



Orthopaedic Physical Therapy Practice

Orthopaedic Section, APTA, Inc.
2920 East Avenue South, Suite 200
La Crosse, WI 54601

Non-Profit Org.
U.S. Postage
PAID
Permit No. 25
La Crosse, WI